

Journal of Poverty and Social Justice

Consensus or dissensus? Analysing people's perceptions of the necessities of life in Finland --Manuscript Draft--

Manuscript Number:	JPSJ-D-18-00011R2	
Full Title:	Consensus or dissensus? Analysing people's perceptions of the necessities of life in Finland	
Article Type:	Article	
Keywords:	poverty; necessities; consensus	
Corresponding Author:	Lauri Mäkinen, Master of Social Sciences Turun Yliopisto Turku, FINLAND	
First Author:	Lauri Mäkinen, Master of Social Sciences	
Abstract:	<p>This study's aim is to analyse whether or not people are in consensus on what the necessities of life are in Finland. Consensus is analysed through two criteria: a public-oriented view on the necessities and agreement between individuals. The study utilizes a Finnish postal survey from 2015 where people were asked about the necessity of 23 items. The results suggest that individual views are shaped by personal circumstances and a fully public-oriented view cannot be established. Further, the respondents did not seem to agree on what are necessities. This implies that the minimum living standard could not be established consensually.</p>	
Order of Authors Secondary Information:		
Funding Information:	Suomen Kulttuurirahasto	Mr. Lauri Mäkinen

1. Introduction

Poverty in Europe is typically understood as the exclusion from a minimum acceptable living standard. There are different ways of establishing this standard and one is to determine it consensually by asking the public what they think. The basic idea of the consensual method is to base the minimum living standard on the perceptions of citizens and thereby, move away from expert evaluations. The consensual poverty method has been used in reference budget studies (e.g. Hirsch and Smith, 2010; Lehtinen et al, 2011), in defining minimum income (e.g. Goedhart et al, 1977), and in defining the necessities of life (Gordon and Pantazis, 1997; Pantazis et al, 2006; Kelly et al, 2012; Mack et al, 2013).

Defining the necessities of life consensually is a pivotal aspect of the material deprivation indicator. As a poverty indicator, material deprivation defines poverty as ‘an enforced lack of socially perceived necessities’ (Mack and Lansley, 1985, p. 9). Material deprivation has a highlighted role in poverty research as it is one of the key indicators for monitoring the European Union 2020 poverty targets. The indicator is based on the assumption that there is a consensus on the necessities of life (Guio et al, 2012). In many studies, consensus has been viewed as agreement on the necessities. Such studies have analysed agreement between groups (e.g. Gordon and Pantazis, 1997; Pantazis et al, 2006; Kelly et al, 2012). In these, the general conclusion is that agreement between groups is strong. However, the study by McKay (2004) implies that agreement between individuals is fair at best. This contradiction suggests that the lack of differences between groups in the necessity of the items may not indicate public agreement on the necessities of life (Fahmy et al, 2015).

Van den Bosch (1998), following on the ideas of Barry (1990), has argued that in order to talk about consensus in addition to agreement, a public-oriented evaluation on necessities is needed as well. This means that rather than being significantly influenced by their personal circumstances, people’s perceptions should instead keep in mind a larger reference group. If people’s answers reflect only their own personal wants and possessions, they are making private-oriented evaluations, and thus, talking about consensus becomes pointless.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

This study analyses data in Finland in the year 2015 to investigate whether these two conditions of consensus co-exist. The public view of the necessities is evaluated by analysing the influence of personal circumstances on the perceptions of necessity. Agreement on the necessities is analysed between individuals. Although there are many studies that have analysed agreement between groups, studies that analyse agreement between individuals using survey methodology are scarce (see, however, McKay, 2004). Focusing on individual agreement, this study is able to identify the individual variation that is likely to happen among groups. Agreement between individuals is analysed with pair-wise kappa statistics that explores how many items the respondents define in the same way. As McKay (2004) analysed inter-personal agreement for the whole population, this study adds to the previous research by analysing inter-personal agreement in population groups as well. This enables analysis of whether or not certain groups hold more uniform ideas about the necessities than others. The results of this study can be helpful for poverty research in determining whether a core element of the material deprivation indicator, consensus on the necessities, can be found. If this cannot be established, it may have consequences for the consensual poverty measurement at the European level.

2. Background: consensual determination of necessities

36
37
38
39
40
41
42
43
44
45
46
47
48
49

The consensual approach to the necessities of life originated as a critique of the study of Peter Townsend (1979). Adopting a relative view on poverty and stating that the needs of the people are socially determined, Townsend aimed to identify what was needed for a minimum lifestyle in Britain. Townsend approached the topic by analysing people's lifestyles, identifying a list of 60 indicators that extensively covered all areas of life. For poverty analysis, Townsend revised the original list into a 12-item deprivation index. The selection of items was considered problematic, as Townsend did not present clear criteria for selecting the items (e.g. Mack and Lansley, 1985).

50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

Building on the work of Townsend, Mack and Lansley (1985) adopted a more democratic approach to establishing a minimum living standard by including citizens in the process. For them, items become necessities when they are socially perceived as such. Thus, the difference between Mack and Lansley's approach and Townsend's was who decides the necessities of life: for Townsend, this was the experts and for Mack and Lansley, this was the populace.ⁱ As David Piachaud (1987)

1 noted, Townsend's approach was more behavioural, whereas Mack and Lansley approached
2 poverty from a consensual perspective.
3

4 By analysing people's perceptions of the necessity of items, Mack and Lansley let the citizens
5 decide what the necessities are. Unlike Townsend, they also included the possibility of choice: for
6 them, poverty was not just about the lack of items but also the fact that 'lack' was enforced due to
7 limited resources. Thus, they regarded poverty as 'enforced lack of socially perceived necessities'.
8 Mack and Lansley's method, called the 'direct consensual method of poverty', is twofold. First,
9 people are presented a list of items and asked to define which of them they consider necessary or
10 not necessary. The items that the majority (50%) of the respondents consider necessary are
11 defined as socially perceived necessities. At the second stage, people are presented the same list
12 and asked which items they have. The people who could not afford three or more necessities are
13 classified as poor.
14
15
16
17
18
19
20
21
22
23

24 This method of Mack and Lansley has been said to contribute to the field of poverty research by
25 providing a direct method that captures poverty accurately as a social phenomenon (Halleröd,
26 1995). At the same time, scholars have questioned the method's capability to reflect the views of
27 the people as a whole. For example, the cut-off point for an item to be a necessity (50%) has been
28 pointed to as somewhat arbitrary (Saunders et al, 2007) and the approach itself is more majoritarian
29 than consensual, as only a majority is needed for an item to be necessary (Veit-Wilson, 1987; Van
30 den Bosch, 1998). The Oxford dictionary defines consensus as a 'general agreement'. This would
31 indicate that consensus is something generally accepted by the community. Therefore, the term
32 'consensus' is interpreted rather loosely (Veit-Wilson, 1987; Van den Bosch, 1998).
33
34
35
36
37
38
39
40
41

42 Research subsequent to Mack and Lansley's study has emphasized that the validity of this approach
43 is based on the condition that no great variation exists in the views of people from different groups
44 (Gordon and Pantazis, 1997; Pantazis et al, 2006; Kelly et al, 2012). The reasoning for this is that
45 otherwise, the minimum acceptable living standard would mean different things to different people
46 (Gordon and Pantazis, 1997).
47
48
49
50
51
52
53
54
55
56

57 **3. Previous results on the perception of necessity** 58 59 60 61 62 63 64 65

1 As agreement on the necessities is a pivotal aspect of the consensus approach, several studies
2 have analysed perceptions of the necessities of life, most of these focusing at the group level
3 agreement. In their pioneer work, Mack and Lansley (1985, p.83) stated that even though some
4 differences between groups of people do exist, there is a 'general cultural ethos about what is
5 sufficient and proper'. They state that based on their Breadline Britain Survey, among the
6 respondents, the minimum was not just about basic essentials but also about items needed for
7 social participation.
8
9

10
11
12
13 In many studies that have followed Mack and Lansley, the main conclusions have been that the
14 consensus is strong. For example, based on the 1990 Breadline Britain Surveyⁱⁱ, Gordon and
15 Pantazis (1997, p.98) concluded that there was a high degree of consensus on the necessities and
16 that 'society as a whole clearly does have a view on what is necessary to have a decent standard of
17 living'. Using a similar approach based on the 1999 Poverty and Social Exclusion (PSE) survey,
18 Pantazis et al (2006, p.119) indicated that 'overall there is a widespread consensus on what are the
19 necessities of life'. Similar results have been found in Northern Ireland (Kelly et al, 2012) and South
20 Africa (Wright, 2011).
21
22
23
24
25
26
27
28
29

30 Although the general conclusion is that consensus on the necessities is strong, there are some
31 factors that shape individual opinions. The results indicate that at the group level, there are
32 differences between *genders*. The general picture seems to show that men are more likely to
33 define items that they use personally as necessary, whereas women find items that the household
34 uses commonly as more important (Pantazis et al, 2006; Kelly et al, 2012). Moreover, there are
35 differences between *income* groups in defining necessities. Many studies have found that
36 households with low incomes tend to consider more items necessary than the richest households
37 (Pantazis et al, 2006; Kelly et al, 2012; Mack et al, 2013). In several studies, *age* was found to
38 influence opinions so that there was a clear divide between the young and the elderly in the
39 perception of necessities (Van den Bosch, 1998; Pantazis et al, 1999; Saunders et al, 2007; Kelly et
40 al, 2012; Mack et al, 2013). Most studiesⁱⁱⁱ have discovered that older age groups are more likely to
41 see items as necessary compared with younger groups (Saunders et al, 2007; Mack et al, 2013).
42 Mack et al analysed the PSE surveys from 1983 to 2012 and found that the differences between
43 the young and the elderly became more evident in the 1999 and 2012 surveys. The differences
44 were thought to reflect generational differences and priorities (see also Van den Bosch, 1998) or
45 more individual attitudes towards consumption. The differences between *rural and urban* dwellers
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

1 were found to be small, although some differences were found on the necessity of a car (Kelly et
2 al, 2012).

3
4 In addition to such demographic characteristics, personal possession and want for the item should
5 be considered when analysing the perception of necessity. Previous studies have found that
6 possession of the item shapes the perception of necessity (Mack and Lansley, 1985; Van den
7 Bosch, 1998). Respondents who had the item were more likely to perceive it as necessary than
8 respondents who did not have it. Beyond possession, a personal feeling of necessity also mattered;
9 namely, those who had the item and felt they could not live without it were more likely to consider
10 it necessary for others as well, rather than those who felt they could live without it. Personal
11 considerations also mattered among those who did not have the item; namely, those who felt they
12 needed the item were more likely to consider it necessary than those who did not want the item.
13
14
15
16
17
18
19
20
21

22 Most of these studies mentioned analysed consensus by contrasting the views of two groups. This
23 approach has been criticized as problematic. It has been argued that it is not enough to talk about
24 consensus even though significant differences between groups do not exist. Van den Bosch (1998,
25 p. 161) stated that it is 'forced to talk about consensus' if half of the population considers an item
26 necessary while the other half does not. He used referendum as an example to illustrate the
27 problematic nature of the approach. If half of the people are in favour of the proposal and half are
28 against it, it is hardly a consensus even though the shares would be the same in population groups.
29
30
31
32
33
34
35

36 One way to avoid the problem of contrasting groups is to move away from the group level and
37 analyse inter-personal agreement. This method was introduced in studies of material deprivation
38 by Stephen McKay (2004). McKay analysed whether the British respondents had defined the same
39 items necessary using Kappa statistics based on the Office of National Statistics (ONS) Omnibus
40 Survey. By looking at the views of people in pairs, McKay found that in many cases, agreement was
41 modest, as people did not define the same items as necessary.
42
43
44
45
46
47

48 Agreement could also be analysed by looking at the number of items defined as necessary. Results
49 indicated that at the group level, there were no great differences in the number of necessities (Van
50 den Bosch, 1998; McKay, 2004). However, at the individual level, the situation was different.
51
52
53

54 According to McKay's (2004) results, there was considerable variation on the number of
55 necessities. Some respondents did not consider any of the items on the list as necessary and some
56 considered all the items necessary. However, most of the respondents were somewhere between
57 the two extremes.
58
59
60
61
62
63
64
65

4. Research design

The aim of this study is to analyse consensus on the necessities of life in Finland in the year 2015. As stated previously, consensus on necessities has been described as a pivotal aspect of the material deprivation indicator (Gordon and Pantazis, 1997). For consensus to exist, not only agreement on the necessities of life is needed but people should have a public-oriented view on the necessities as well (Van den Bosch, 1998). Public view means that answers about the necessity of items should reflect the needs of the public and not only be influenced by an individual's own needs and wants. Here, agreement is analysed at the individual level. Previous research has mainly focused on group level agreement and the general conclusions were that there were no significant differences between groups in defining the necessities (Mack and Lansley, 1985; Gordon and Pantazis, 1997; Pantazis et al, 2006; Wright, 2011; Kelly et al, 2012). At the same time, few studies have focused on individual level agreement (see, however, McKay, 2004), although there have been indications that agreement between individuals may be weak. This study adds to the research of McKay (2004) by analysing inter-personal agreement not only in the whole sample but also in different population groups. By extending the analysis to population groups, the possibility that inter-personal agreement is stronger in some groups can be examined. This study tests the validity of the material deprivation indicator by answering the following questions:

1) Is there consensus on the necessities of life in Finland?

a) Do people have a public-oriented view of the necessities of life?

b) Do people agree on the necessities of life?

4.1. Data

The data (KONSE) used for this study were from a postal survey in 2015 conducted by the Department of Social Research, University of Turku. The survey was a random sample of Finnish people between the ages 19-69. There are 2,000 respondents in the survey and the response rate was 40 %^{iv}. The survey had a segment of 23 items where people were asked whether a given commodity was 1) necessary, 2) not necessary but desirable, or 3) unnecessary for a Finnish adult. For this study, the items were recoded into dummy-variables where response 1) (necessary) was

valued as 1 and responses 2) and 3) as 0. For analysing the number of necessities, only the respondents (n=1858) who answered all the questions in the segment were included.

The study uses several independent variables to analyse the perception of necessity. First, previous studies have shown that even though there are no major differences between genders in the perception of necessity, certain items were more important to men and certain items to women (Pantazis et al, 2006; Kelly et al, 2012). Second, people of different ages have different ideas about the necessity of items (Van den Bosch, 1998; Pantazis et al, 1999; Gordon et al, 2000; Saunders et al, 2007; Kelly et al, 2012; Mack et al, 2013). In this study, perception of necessity was analysed in four age groups: 19-35 (n=390), 36-52 (n=572), 53-64 (n=594), and 65-69 (n=444). It should be noted that the analysis does not cover the whole elderly population as the oldest respondents in the dataset are only 69-year-old. In addition, the household's financial situation was analysed through poverty experience. The respondents were asked the following question: '*Considering my current situation, I feel that I live in poverty*'. The variable that originally consisted of four categories (1 = strongly agree, 2 = partly agree, 3 = partly disagree, and 4 = strongly disagree) was recoded into two categories (1 = agree, 2 = disagree). Almost every fifth respondent (n=352) stated that they were living in poverty. Previous research also noted that some of the items were more necessary to people living in rural areas (see e.g. Kelly et al, 2012). This was analysed in here with an indicator that referred to whether the respondent lived in rural areas or in cities (1 = rural areas, 2 = small or medium city, 3 = big city). Approximately every fifth respondent lived in the rural areas (n=400), every third in the small or medium cities (n=631) and almost half of the respondents lived in the big cities (n=865). The independent variables were used for three purposes: 1) to analyse the average number of necessities in each group, 2) to analyse inter-personal agreement among each group, and 3) as control when analysing the public-oriented views of the respondents. To study whether the respondents made public-oriented evaluations of the necessities of life, a question related to possession was used. The answer choices were: 1) You have and could not go without, 2) You have but could do without, 3) You do not have and do not want, and 4) You would like to have but cannot afford.

4.2. Methods

The study analysed consensus using several methods. Public view on the necessities of life was analysed with binary logistic regression to examine how possession and personal want for the item

related to the perception of necessity. Logistic regression analysis was used since the dependent variable was binary (necessary/not necessary). For controlling the relation of personal circumstances to the perception of necessity, age, gender, poverty, and place of residence were used. Although it is difficult to say which kind of reference groups (public or private) respondents actually used, the results did offer some indications on people's evaluations.

Agreement on the necessities was analysed with a multi-factor analysis of variance (ANOVA) and kappa statistics. The ANOVA test was used to analyse the average number of necessities in population groups. The dependent variable was the number of necessities, and age, sex, poverty experience, and place of residence were used as independent variables. Previous results indicated that the number of items possessed did not have a straightforward relation with the number of necessities (Van den Bosch 1998). Thus, this was not tested here.

There are several ways to analyse inter-personal agreement. The simplest way is to look at the share of items that two respondents agree. This percent agreement has been found to be an inadequate measure of agreement as it does not take into account that agreement may occur by chance and may thus overestimate the agreement (Banerjee et al, 1999). To address this problem, Cohen's Kappa was developed (Cohen 1960). Kappa statistics analyses agreement not only by looking at how many items two respondents have defined the same way, but also considering that some of the agreement may happen due to chance. Agreement by chance is called the expected agreement. . Thus, the kappa coefficient is calculated as follows:

$$k = \frac{\textit{proportional agreement} - \textit{expected agreement}}{1 - \textit{expected agreement}}$$

Insert here: Table 1. Interpretation of kappa statistics

In kappa statistics, the coefficients vary between -1 and 1: where 1 would mean perfect agreement, 0 that agreement is equivalent to chance and negative values indicate that expected agreement is higher than proportional agreement. The scale in Table 1 can be used as a reference guide for interpreting the kappa coefficients (Landis and Koch, 1977). Although the divisions are somewhat arbitrary, they can be used as benchmarks when interpreting the results of the kappa statistics.

Table 2 presents an example of agreement between two respondents on the 23 items. Cell A shows the items that both of the respondents classified as necessary and cell B shows the items that respondent X defined as necessary and respondent Y as not necessary. Cell C presents the five items that respondent Y deemed as necessary and respondent X as not necessary. Cell D shows the number of items that were considered as not necessary by both respondents. As can be seen, the respondents agreed on 15 items (cells A and D) of the 23 items, the agreement ratio was 0.65. This means that the respondents coded approximately two-thirds of the items the same way. The expected agreement could be calculated as follows: $((10*12/23) + (13*11/23))/23$, which equates to 0.497. With these agreement rates, the kappa coefficient would be 0.31. The value of the kappa indicates that the level of agreement is not very high; in fact, it would be considered only fair.

This example is based on only one pairwise-test between two respondents. Using Stata, the average kappa statistics can be executed for all the possible pairs. With over 1,800 observations in the survey, pairwise-tests for over 1,700,000 pairs are computed.

Insert here: Table 2. Example of pairwise kappa statistics

5. Results

5.1. The necessity of items

Figure 1 presents the share of respondents who agreed that an item or activity was necessary. It seems that people were almost unanimous that everyone should be entitled to health care services, dentists, and hot meals once per day. In addition, a phone was defined as necessary by almost nine out of 10 respondents. Further, more than eight out of 10 respondents considered fruits and vegetables every day and a dwelling with basic amenities necessary for everyone. These items appear to capture basic needs (health, nutrition, and housing) and thus, indicate that people more or less agree that everyone should be entitled to these.

Insert here: Figure 1. Share of people claiming the item as necessary

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

At the other end of the scale, there was almost as strong agreement that a car, going to the movies, one-week holiday, and the ability to arrange a party and outfit for special occasions were not necessities. These items were more related to leisure and, according to less than 20%, should be part of the minimum living standard in Finland. In between the extremes, there were 13 items where rates of necessity varied from 20%-70%. This indicates that the respondents were divided on the necessity of these items. For example, people were divided almost equally over the need for: a spacious apartment (51.6%), barber or a hairdresser (51.6%), or a device for Internet access (47.9%). In total, 10 items were regarded as necessary by the majority (50%) of the respondents. Next, whether these perceptions were a result of private-oriented views on the necessities of life was analysed.

5.2. A public-oriented view on necessities

If the respondents had a perfectly public-oriented view on necessities, the expectation would be that personal circumstances, such as possession and personal want of the item, would not influence their perceptions of necessity. This would mean that there would be no significant differences between those who possessed the item and those who did not.

Table 3 presents the perception of necessity by the possession of the item. The table is divided into four columns. Each column presents the share of respondents who stated that the item was necessary. The first column shows those who had the given item and said they could not live without it, and define it as necessary for others. The second column shows those who had the item but said they could do without it. The third and fourth columns show the respondents who did not have the item with the third column showing those who stated they did not need the item and the fourth column showing those who said they would like to have it.

The results shown in Table 3 reveal that the rankings of the top items were somewhat similar in different groups. This gives an indication that there are certain items that people value highly regardless of how important the item is to them. On the other hand, personal circumstances also appeared to influence people's perceptions of necessity. It is clear from the results shown in the table that those who had the item and could not live without it were most likely to consider the item as necessary. This is somewhat obvious and indicates that people think about their own situation when determining the necessities of others. However, there were some items where

1 respondents did not consider the item necessary for everyone. For example, only 22% of those
2 who stated that they could not live without a car felt it was necessary for everyone. A similar kind
3 of 'selfishness' was found in previous studies (Mack and Lansley, 1985; Van den Bosch, 1998). This
4 has been thought to be an indication of public perspective, where respondents distinguish what is
5 necessary for themselves vis-à-vis what is necessary for the public, and set the standard lower than
6 what they see as their own needs.
7

8
9
10
11 Those who were deprived of the item but wanted to have it were the next most likely to classify
12 items as necessary. However, as the share of these people was lower compared to those who had
13 the item and could not live without it, this offered an indication that possessing the item was
14 significant to the perception of necessity (see also Mack and Lansley, 1985). These respondents,
15 thus, extrapolated their own needs to the needs of the larger public but to a lesser degree than
16 the first group.
17

18
19
20
21
22
23
24 Respondents who had the item but could do without it seemed to be divided over many items.
25 Even though a great majority saw healthcare services, dentists, and hot meals as necessary, in
26 many items respondents were divided or indicated low levels of necessity. Low levels of necessity
27 make sense because respondents might think that if they can manage without the item, there is no
28 need for others to have it. This gives an indication that personal judgment on the need of the item
29 makes some difference and implies a private-oriented evaluation. On the other hand, respondents
30 who defined the item as necessary even though they personally did not need it were making
31 public evaluations.
32

33
34
35
36
37
38
39
40 In many items, there were not many respondents who did not have an item and did not want it.
41 Among them, the likelihood of defining the item as necessary was low. This is an indication that
42 personal evaluation has an impact on the necessity of the item for others. Although not as
43 common, there were some who still felt it necessary for others even though they did not need it.
44 This illustrates a strong public-oriented view on the necessities. In sum, it seems there is some
45 evidence that people make public oriented judgments, however, in most cases, their views are
46 shaped by their own personal evaluations.
47

48
49
50
51
52
53
54 *Insert here: Table 3. Share of respondents defining the necessity by possession and personal assessment, %*
55

56
57 The influence of the respondent's personal circumstances was further analysed with a logistic
58 regression analysis, controlling it with age, poverty, gender, and place of residence (Table 4).
59
60
61
62
63
64
65

1 Different models were tested to find the best fitting model for possession and personal want. First,
2 the variable was recoded so that it assessed whether or not the household possessed the item.
3 This proved to be unsuccessful in capturing people's evaluations on the necessity of the item (R^2
4 varied between items from 0.001 to 0.08). In the second model, the variable was recoded so that
5 it measured whether the respondent wanted the item or not, regardless of possession. This
6 provided a better fitting model (R^2 : 0.06 – 0.24) with almost as much explanatory power than the
7 variable in its original form. Although the best fitting model was with the four-classed variable (R^2 :
8 0.07–0.26), a binary model with personal want was used. This was because, for many items, there
9 were only a few respondents who defined them as necessary even though they did not have or
10 need them. Nonetheless, this indicates that when explaining people's attitudes regarding the
11 necessities of life, in general, it is best explained by an individual's private evaluation and not
12 possession. Thus, the results of this study differ from Van den Bosch's (1998) study where the
13 model did not include personal want for the item among those who had the item.

14 The final analysis was divided into two different models to evaluate the importance of personal
15 want for the item: one without personal want and one where it was included. Here atypical
16 approach was adopted for presenting the results: the dependent variables (items) are shown in
17 rows and independent variables in columns. For each item, the model without personal want is
18 shown in the first row of the column, and the second row shows the significance when personal
19 want is included. The table presents the general significance for each factor. For personal want, the
20 marginal effects are reported as well. The marginal effects illustrate how much higher (in
21 percentage points) the probability of those wanting the item and defining it as necessary is
22 compared to those who state they do not need the item.

23 Personal want is a significant factor in all the items in defining the items necessary even when
24 controlled with other factors. When looking at the marginal effects, those who want the item for
25 themselves are more likely to consider it necessary for others. However, there was variation
26 between items: among those who wanted a car the probability of defining the item necessary for
27 others was only 13 percentage points higher compared to those who did not want a car. The
28 highest marginal effect was found in home insurance. This means that those who wanted home
29 insurance had a 60 percentage points higher probability of defining it as necessary than those who
30 say they did not need it. Thus, the impact of personal want was a very significant factor for all the
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

items as the fit of the model improves significantly when personal want was included (the value -2 log likelihood). In addition to personal want, other factors were connected to the perception of necessity. Age had an connection to the necessity of 10 items, poverty and gender to seven, and place of residence to one. This means that these connections were independent from whether or not the respondent wanted the item.

Insert here: Table 4. Perception of necessity by age, gender, poverty, place of residence, and personal want for the item: logistic regression with significance levels^v and marginal effects for personal want.

Past research has acknowledged that the perception of necessity is related to personal circumstances (Mack and Lansley, 1985; Van den Bosch, 1998). Similar results appear in this study. In general, the analyses here suggest that people are to some extent making evaluations on the necessities based on their private evaluations. Unlike in the study by Van den Bosch (1998), the results of this study do not show that possession influences the perception of necessity but rather that the personal importance of the item is what matters. The results suggest that what people perceive to be necessary is not directly influenced by their own living standard (i.e. possessing the items) but rather what they want for themselves (see also Van den Bosch, 1998). However, public evaluation cannot be ruled out entirely.

5.3. Number of necessities

The number of items people define as necessary is one way to approach agreement and can indicate whether people have different perceptions of the minimum acceptable living standard. Figure 2 presents the number of items classified as necessary by the respondents. It is evident that there is considerable variation on how many items the respondents considered as necessary. On the lower end of the scale, some respondents stated that only a few items were necessary. On the other hand, some respondents felt that almost all the items were necessary. The majority were in between the extremes as approximately 75% considered six to 15 items necessary. On average, respondents defined 11 items as necessary but the most typical answer was nine. The numbers were close to the number of necessities calculated by the majority approach. However, just as the figure shows, there was considerable variation around the mean as the standard deviation was 4.1.

Insert here: Figure 2. Number of items considered necessary

1
2
3 A multi-way ANOVA test was used to assess whether there were differences between groups in
4 terms of the number of necessities (Table 5). The first two columns present the descriptive results
5 and the last two the results of the ANOVA test. Although the average number of necessities did not
6 differ greatly between groups, some differences were found. In every group, there seemed to be a
7 variation in the number of necessities, as the standard deviation was rather high. First, there
8 seemed to be differences between age groups so that the average number of necessities increased
9 when moving from the youngest age group to the oldest. According to the post hoc-test (Tukey),
10 the oldest age group differed from the other age groups. This implies that the oldest age group
11 held different ideas about the minimum acceptable living standard. Studies have suggested that
12 when comparing groups item by item, the youngest age groups are less generous about what
13 constitutes the minimum acceptable living standard (Mack et al, 2013). However, according to the
14 results, this might not be the case but rather that the oldest age group was more generous than
15 the other groups. When it comes to poverty, people who are experiencing poverty consider more
16 items necessary than those who have not lived in poverty ($p < 0.001$). This result seems to be in line
17 with previous research (Pantazis et al, 2006; Kelly et al, 2012; Mack et al, 2013). Although the
18 difference between groups is small, this implies that those better off and those worse off have
19 different views on the necessities, and thus, on the minimum acceptable living standard. Between
20 gender and place of residence there were no significant differences. The results here suggest that
21 the number of necessities varies between groups and individuals; however, it was not evident
22 whether the respondents defined the same items as necessary.
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41

Insert here: Table 5. The number of necessities by gender, age, and poverty

5.3. Inter-personal agreement on the necessities

42
43
44
45
46
47
48
49
50
51
52 As previously reviewed, there were some differences among the groups in defining the necessities
53 of life. Here, the analysis focuses on the individual level. By utilizing kappa statistics, it is possible to
54 assess whether two respondents defined the same items as necessary. This offers more detailed
55 information on the agreement than looking at the differences just at the group level.
56
57
58
59
60
61
62
63
64
65

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

Table 6 presents the results of the kappa statistics (the average value for all the pairs) in the whole population and in the population groups. The value of the kappa statistics was 0.33 in the whole population. In section 4, a reference guide was introduced to interpret the results. According to that table, this value would indicate a fair agreement on the necessities. In other words, people's evaluations of the necessities were not independent but agreement on the necessities was rather weak. Respondents tended to define different items as necessary. As reviewed earlier, personal want for the item was a significant factor when respondents defined the item as necessary. The low level of agreement found here is likely to occur as respondents find different items necessary for themselves.

Insert here: Table 6. Results of the kappa statistics in the whole population and in the population groups

Agreement on the necessities was studied in population groups to determine whether the low agreement in the whole population resulted from low agreement in certain population groups. The results suggest that the agreement did not change considerably in the groups. The lowest agreement was found among those experiencing poverty. Interestingly, in the age groups, the lowest agreement was found among the eldest group (65-70 years) and the highest agreement was found among the youngest age group, implying that the youngest age group held more similar views on the necessities of life than the other age groups. The results of the kappa statistics are interesting when considering the average number of necessities in each group. The oldest age group and those experiencing poverty identified the highest number of necessities but the lowest agreement according to the kappa statistics. This could mean that the higher the average number of necessities, the higher the deviation among groups, which, in turn, would mean lower agreement on the necessities. Thus, the results here indicate that it is not very likely that two random respondents would have agreed fully on the necessities of life, even though some agreement was found.

6. Conclusions

Material deprivation is a poverty indicator that aims to analyse poverty as the enforced lack of socially perceived necessities. This study analysed whether there was consensus on what the necessities should be in Finland. Consensus was analysed using two criteria. First, people should have a public-oriented view of the necessities of life. This meant that when determining the

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

necessity of the items, the individuals not basing their answers on their private possession or personal want of the item. Van den Bosch's (1998) results from Belgium imply an indication of public-oriented views even though the answers on the necessities were coloured by personal circumstances.

In addition, this study analysed agreement at the individual level to assess whether there were significant differences between people's perceptions of necessity. Previous results indicated that agreement between individuals was fair at best (McKay 2004), but agreement between groups, in general, was strong (see e.g. Gordon and Pantazis, 1997; Pantazis et al, 2006; Kelly et al, 2012).

According to the results of this study, the two conditions set for consensus appear somewhat problematic. First, respondents' views seem to be strongly influenced by private evaluations. In contrast to Van den Bosch's (1998) study, which found that possession influenced the perception of necessity, the results here suggest that it is the personal want for the item that best explains the answers on the necessities of life. It appears that those who value the item important for themselves are more likely to define it as necessary for others than those who do not need the item. This difference is systematic and significant for all the items. However, the public view of the necessities could not be ruled out entirely as there were those who felt that items were necessary for the public but not for themselves. Furthermore, in some cases, people set the minimum acceptable living standard lower than their own living standard by not defining some item as necessary even though it was indispensable to them.

Second, there were signs that agreement on the necessities was modest at best. According to the results, people seem to have different ideas about the items that should be included in the minimum living standard. This was illustrated by two results: the number of necessities varied between respondents and the agreement between individuals on the necessities was only fair. Strong agreement was not found among the Finnish people in general or in the population groups. Even though the agreement was found to be modest, strong agreement was found in items that were related to core elements of absolute poverty such as to health, nutrition, and some elements of housing. In addition, there seemed to be rather strong agreement that some items were not part of the minimum living standard. These included a car and items related to social needs, such as going to the movies.

The weak agreement found at the individual level likely occurred because personal want for the item influenced people's views. In addition to personal want, demographic factors shaped opinions

1 on the necessities of life. As in previous studies, this study found that there were some differences
2 between age groups. This appeared in the item-to-item analysis and also in the number of items
3 defined as necessary. It seems that the oldest age group, on average, defined more items
4 necessary than others. It was also found in previous studies that young people were less likely to
5 consider items as necessary (Saunders et al, 2007; Mack et al, 2013). However, the results of this
6 study indicate that, on average, the number of necessities stated by the youngest age group was of
7 a similar level with others, except for the oldest respondents. The difference between young and
8 old has been thought to reflect generational differences or that the young could have adopted a
9 more individual approach to consumption (Mack et al, 2013). However, the results here do not
10 support this. However, the results do indicate that the young have a more shared vision about the
11 necessities of life, while the oldest age group was the most divided on the issue. Yet, it should be
12 noted that agreement in every group was fair at most. In addition to age, poverty status, gender,
13 and place of residence were connected to the perception of necessity in some items.
14
15
16
17
18
19
20
21
22
23
24

25 The low agreement found here does not necessarily mean that people do not agree on the
26 necessities of life. It is possible that the survey methodology and current methods used in surveys
27 may not be the best tools for establishing the necessities. First, it could be that respondents need
28 contextual information to help make their decisions. Previous studies indicate that many people
29 need additional information for *whom* they are defining the necessities. For example, when
30 thinking about the necessity of a car, people may need more information on the availability of
31 public transportation of a given geographical location (Fahmy et al, 2015). Contextual information
32 has also been helpful for people to distinguish their own needs from the needs of others. Results
33 from previous studies indicate that when respondents are presented with a hypothetical family
34 and asked to consider their needs, people were less prone to think about their own situation
35 (Hirsch and Smith, 2010).
36
37
38
39
40
41
42
43
44
45
46

47 The low agreement could also be the result of a different understanding of the term 'necessary'.
48 Previous qualitative studies indicate that respondents may not understand the term the way
49 researchers intend (Fahmy et al, 2015). One way to tackle this problem is to move away from the
50 survey methodology and to use focus groups to determine the necessities. This idea is not new as
51 this was put forward by Walker thirty years ago (Walker, 1987). Walker argued that as the goal of
52 the approach is to find socially perceived necessities, people should be able to interact with others
53 in the process. The results of qualitative studies indicate that for many items, there is widespread
54
55
56
57
58
59
60
61
62
63
64
65

1 agreement on the necessity of items, even though some decisions have to be made with a
 2 majoritarian approach (Fahmy et al, 2015). Successful results in defining the necessities have also
 3 been found in Minimum Income Standard studies, where reference budgets are constructed
 4 consensually in focus groups (see e.g. Hirsch and Smith, 2010).
 5
 6

7
 8 It has been stressed that the indicator of material deprivation rests on the assumption that people
 9 are in consensus on what the necessities of life are. The results of this study imply that consensus
 10 on the necessities of life does not exist among the Finnish people. In many studies (see e.g.
 11 Pantazis et al, 2006; Kelly et al, 2012) consensus has been reduced to agreement on the necessities
 12 between groups. These studies typically have argued that even though some differences between
 13 groups exist, the agreement is still strong between groups. The results here show that among the
 14 respondent groups there was no consensus on the necessities as people had contrasting views
 15 about the minimum living standard. This suggests that there is no clear picture what is decent and
 16 proper as individual views are influenced by personal circumstances. Given the criteria set in this
 17 study, the results do not support the use of consensual survey methods in poverty research, as
 18 common ground for the minimum acceptable living standard could not be established.
 19
 20
 21
 22
 23
 24
 25
 26
 27
 28
 29
 30
 31
 32

33 **References**

- 34
 35 Abe, A, Pantazis, C, 2014, Comparing Public perceptions of the necessities across two societies:
 36 Japan and the United Kingdom. *Social Policy and Society*, 13, 69–88
 37
 38 Banerjee, Capozzoli, M, McSweeney, M, Sinha, D, 1999, Beyond kappa, a review of interrater
 39 agreement measures. *The Canadian Journal of Statistics*, 27, 1, 3-23
 40
 41 Barry, B, 1990, *Political argument. A reissue with a new introduction*, New York: Harvester
 42 Wheatsheaf.
 43
 44 Cohen, J, 1960, A coefficient of agreement for nominal scales. *Educational and Psychological*
 45 *Measurement*, XX, 1, 37-46
 46
 47 Fahmy, E, Sutton, E, Pemberton, S, 2015, *Are We All Agreed? Consensual Methods and the*
 48 *'Necessities of life' in the UK Today. Journal of Social Policy*, 44, 3, 591–610
 49
 50 Guio, AC, Gordon, D, Marlier, E, 2012 *Measuring material deprivation in the EU. Indicators for the*
 51 *whole population and child-specific indicators*. Eurostat, Methodologies and Working Papers.
 52
 53
 54
 55
 56
 57
 58
 59
 60
 61
 62
 63
 64
 65

- 1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
- Goedhart, T, Halberstadt, V, Kapteyn, A, Van Praag, B, 1977, The Poverty Line Concept and Measurement. *The Journal of Human Resources*, 12, 4, 503–520
- Gordon, D, Pantazis, C, 1997, The public's perception of necessities and poverty, in *Breadline Britain in the 1990s*, Aldershot: Ashgate, 71-96
- Halleröd, B, 1995, The truly poor: direct and indirect consensual measurement of poverty in Sweden, *Journal of European Social Policy*, 5, 2, 111–129
- Hirsch, D, Smith, N, 2010, *Family values – parents' views on necessities for families with children*. Report no. 641, Department of Work and Pensions Research
- Kelly, G, Tomlinson, M, Daly, M, Hillyard, P, Nandy, S, Patsios, D, 2012, *The necessities of life in Northern Ireland*, Working Paper 1, Poverty and Social Exclusion in the UK
- Landis, JR, Koch, GG, 1977, The Measurement of Observer Agreement for Categorical Data, *Biometrics*, 33, 1, 159–174
- Lehtinen AR, Varjonen, J, Raijas, A, Aalto, K, 2011 What is cost of living? Reference Budgets for a Decent Minimum Standard of Living in Finland, Working papers 132/2011, National Consumer Research Centre
- Mack, J, Lansley, S 1985, *Poor Britain*, London: Allen & Unwin
- Mack, J, Lansley, S, Nandy, S, Pantazis, C, 2013, Attitudes to necessities in the PSE 2012 survey: are minimum standards becoming less generous?, *PSE-UK Working Paper Analysis Series*, 4
- McKay, S, 2004, Poverty or preference: what do 'consensual deprivation indicators' really mean?, *Fiscal Studies*, 25, 2, 201–223
- McKay, S, 2008, *Measuring material deprivation among older people: Methodological study to revise the Family Resources Survey Questions*, Department of Work and Pensions
- Pantazis, C, Gordon, D, Townsend, P, 2006, The necessities of life, in C Pantazis, D Gordon, and R Levitas (eds), *Poverty and social exclusion in Britain. The millennium survey*, Policy Press, 89–122
- Piachaud, D, 1987, Problems in the Definition and Measurement of Poverty, *Journal of Social Policy*, 16, 02, 147–164
- Saunders, P, Naidoo, Y, Griffiths, M, 2007, *Towards new indicators of disadvantage: Deprivation and social exclusion in Australia*, Social Policy Research Centre
- Townsend, P, 1979, *Poverty in the United Kingdom: a survey of household resources and standards of living*, University of California Press

1 Van den Bosch, K, 1998, Perceptions of the minimum standard of living in Belgium: Is there a
 2 consensus, in HJ Andress (ed), *Empirical poverty research in a comparative perspective*,
 3 Aldershot: Ashgate, 135–166

4
 5 Veit-Wilson, JH, 1987, Consensual approaches to poverty lines and social security, *Journal of Social*
 6 *Policy*, 16, 2, 183–211

7
 8
 9 Walker, R, 1987, Consensual Approaches to the Definition of Poverty: Towards an Alternative
 10 Methodology, *Journal of Social Policy*, 16, 02, 213–226

11
 12 Wright, G, 2011, *Socially perceived necessities in South Africa: comparing the views of sub-groups*
 13 *of the population*. Working paper no 9. Centre for the Analysis of South African Social Policy,
 14 University of Oxford
 15
 16
 17
 18

19 _____
 20 ⁱ However, Mack and Lansley's approach is not fully consensual as experts decide the items on the list.

21 ⁱⁱ The 1990 Breadline survey was a repetition of the 1983 survey but with a wider range of items.

22 ⁱⁱⁱ However, for example, Abe and Pantazis (2014) found that older age groups had more restrictive views about the
 23 necessities of life. According to McKay (2008), the need for specific items is related to the life course, so that the older
 24 people are less likely to define some items necessary for other old people compared with the whole population.

25 ^{iv} In the dataset, 50-69 year olds are somewhat overrepresented and the youngest age groups (20-39) somewhat
 26 underrepresented. Otherwise, no major issues regarding representativeness exist in the data.

27 ^v- = not in the model, ns= not significant at 0,01, * = significant at 0,01 level i. The Bonferroni method was used to
 28 adjust the p-values.
 29
 30
 31
 32
 33
 34
 35
 36
 37
 38
 39
 40
 41
 42
 43
 44
 45
 46
 47
 48
 49
 50
 51
 52
 53
 54
 55
 56
 57
 58
 59
 60
 61
 62
 63
 64
 65

Figure 1. Share of people claiming the item as necessary

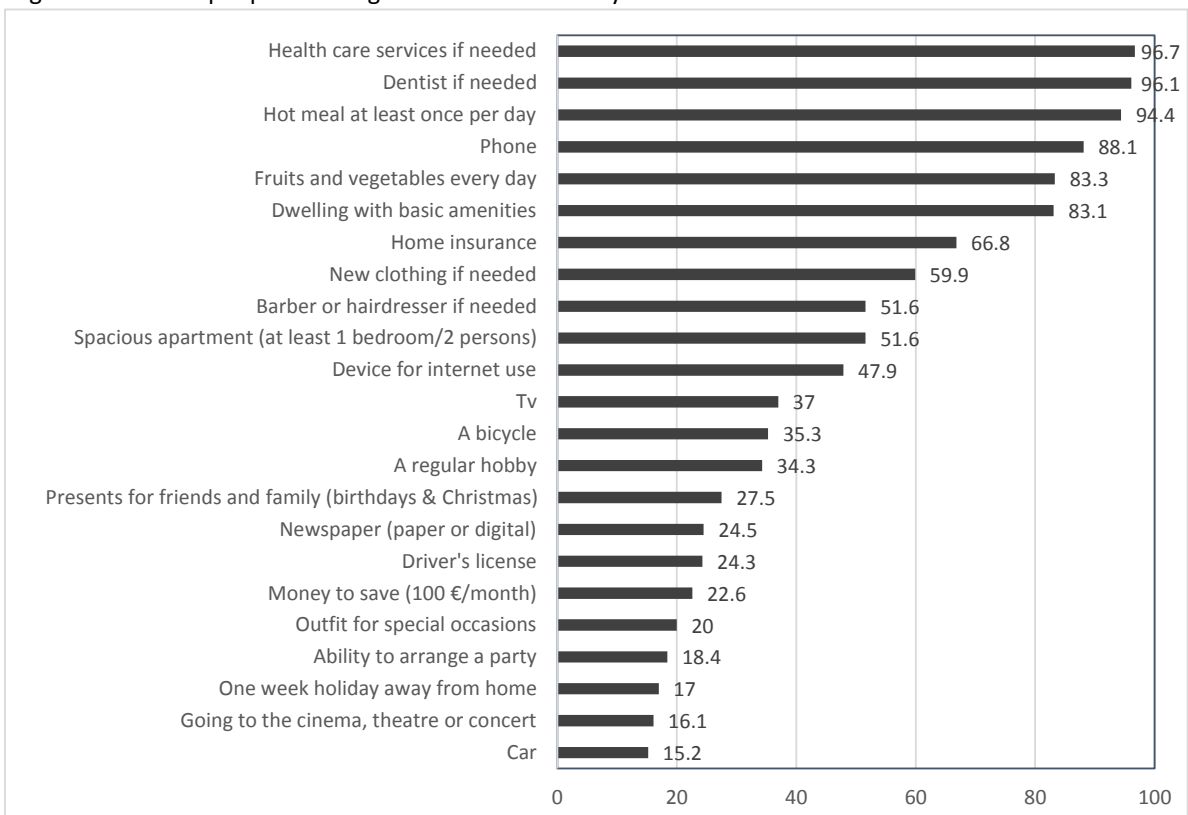


Figure 2. Number of items considered necessary

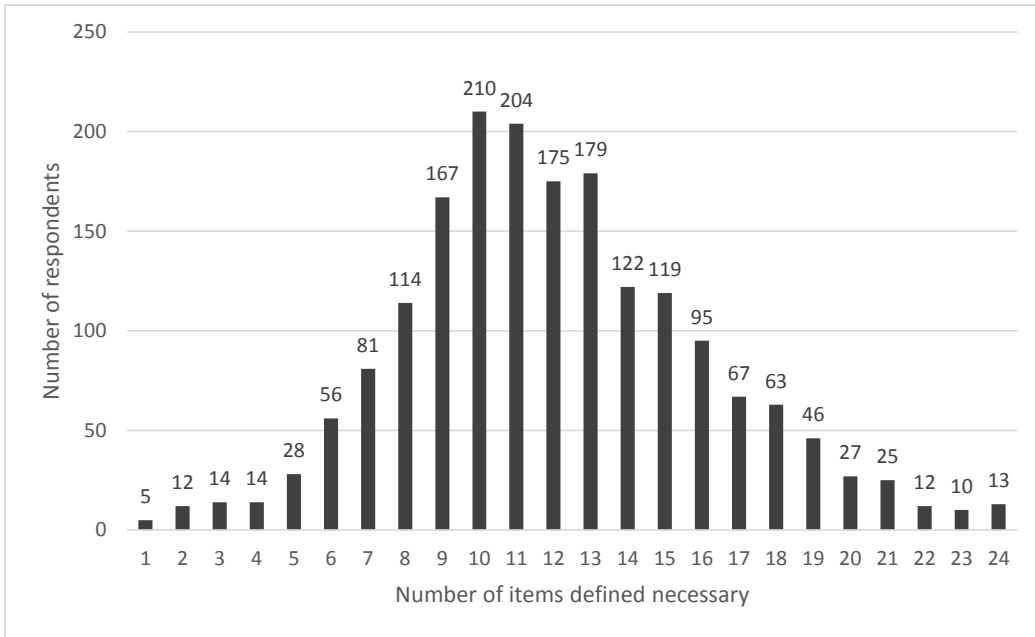


Table 1. Interpretation of kappa statistics

Kappa statistics	Strength of the agreement
< 0.00	Poor
0.00 – 0.20	Slight
0.21 - 0.40	Fair
0.41 – 0.60	Moderate
0.61 – 0.80	Substantial
0.80 – 1.00	Almost perfect

Table 2. Example of pairwise kappa statistics

		Respondent Y' s classifications		
		Necessary	Not necessary	
Respondent X' s classifications	Necessary	7 (A)	3 (B)	10
	Not necessary	5 (C)	8 (D)	13
	Total	12	11	23

Table 3. Share of respondents defining the necessity by possession and personal assessment, %

Item	All	Have and could not live without	Have but could do without	Do not have, do not need	Do not have but want to have
Health care services	97	98	76	100*	96
Dentist	96	98	71	60*	98
Hot meal	94	97	68	0*	86
Phone	88	92	54	33*	50*
Dwelling with basic amenities	83	88	45	50*	44*
Fruits and vegetables every day	83	93	43	15*	74
Home insurance	67	82	16	16	48
New clothes	60	80	40	13*	62
Persons/apartment	52	67	28	22	48
Barber/hairdresser	51	76	24	9	44
Internet	48	64	15	4*	22
TV	37	64	15	0*	27*
Bicycle	35	63	19	6	35
A hobby	34	55	20	11	37
Presents	27	54	9	9*	32
Driver's license	25	31	7	7	14
Newspaper	24	64	14	4	18
Money to save	23	41	8	7	23
Outfit for special occasion	20	45	9	1*	26
Ability to have a party	18	45	9	1*	29
Vacation	17	41	7	7	20
Movies etc.	16	41	7	5	20
Car	15	22	4	5	8

* Less than five cases

Table 4. Perception of necessity by age, gender, poverty, place of residence, and personal want for the item: logistic regression with significance levels and marginal effects for personal want.

Item	Age	Gender	Poverty	Place of residence	Personal want		-2 log likelihood (base, without possession, with possession)		
Health care	ns ns	* ns	ns ns	ns ns	- *	0.19	293	238	201
Dentist	ns ns	* ns	ns ns	ns ns	- *	0.24	325	274	227
Hot meal	ns ns	ns ns	ns ns	ns ns	- *	0.32	428	384	300
Phone	* *	* ns	ns ns	ns ns	- *	0.36	727	646	571
Dwelling with basic amenities	* *	* *	* *	ns ns	. *	0.40	903	773	693
Fruits and vegetables	ns ns	* ns	ns ns	ns ns	- *	0.47	901	769	596
Home insurance	* *	* *	ns ns	ns ns	- *	0.60	1259	1106	868
New clothes	ns ns	ns ns	ns ns	ns ns	- *	0.38	1335	1201	1069
Persons/apartment	* *	ns ns	ns ns	ns ns	- *	0.39	1365	1220	1092
Barber/hairdresser	* *	ns *	ns ns	ns ns	- *	0.45	1376	1184	1004
Internet	* *	ns ns	ns *	* ns	- *	0.46	1365	1186	1021
TV	* *	ns ns	* *	ns ns	- *	0.44	1308	1076	884
Bicycle	ns ns	ns ns	* *	ns ns	- *	0.44	1277	1132	951
A hobby	ns ns	* *	ns ns	ns ns	- *	0.31	1271	1136	1041
Presents	ns ns	ns ns	ns ns	ns ns	- *	0.40	1165	1036	851
Driver's license	* *	* *	* *	* ns	- *	0.20	1091	885	840
Newspaper	* *	ns ns	ns ns	* ns	- *	0.38	1094	890	745
Money to save	ns ns	* *	* *	ns ns	- *	0.24	1063	936	864
Outfit for special occasion	ns ns	ns ns	ns ns	ns ns	- *	0.30	990	867	751
Ability to have a party	ns ns	* ns	ns ns	ns ns	- *	0.30	943	834	727
Vacation	ns ns	ns *	* ns	ns ns	- *	0.26	900	783	677
Movies etc.	ns ns	* ns	ns ns	ns *	- *	0.27	871	765	661
Car	* *	* *	ns ns	* ns	- *	0.13	831	657	627

Table 5. The number of necessities by gender, age, and poverty

	Average number of necessities	Standard deviation	F-value	Sig.
Gender			2.35	0.13
Men	10.8	4.2		
Women	11.2	4.0		
Age			6.38	<0.001
19-35	10.5	3.6		
36-52	10.8	3.9		
53-64	11.1	4.3		
65 or older	12.0	4.5		
Subjective poverty			15.15	<0.001
Lives in poverty	11.8	4.5		
Does not live in poverty	10.8	3.9		
Place of residence			1.04	0.35
Rural	11.04	4.2		
Middle sized city	10.99	4.3		
Big city	11.05	3.9		

Table 6. Results of the kappa statistics in the whole population and in the population groups

	Kappa coefficient
The whole population	0.33
Gender	
Men	0.30
Women	0.36
Age	
19-35	0.42
36-52	0.36
53-64	0.32
65-70	0.29
Poverty	
Lives in poverty	0.25
Does not live in poverty	0.36