THE DEPRIVED SOCIAL CATHEGORIES: NECESSARY SUPPORT IN THE POPULATION'S PERCEPTION

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Abstract: *Inside this article there are summoned the results of a research that is realized at a national level that had as target of study the population's perception as concerning the help of the social deprived groups. The social analisys is based on the answers received at the questioneer and reffers to eight random situations that design the eight deprived social cathegories that were analized. The sample is a representative one and includes 3918 individuals. The results of the research underlined the fact that the entire population chooses prioritarily the help for the abandoned or deserted children. This way, there was identified a certain level of refuse from the part of the community concerning the Rroma support although there is not anithing about a discriminatory atitude but a percievable degree of mistrust.*

Keywords*: abandoned children, people with disabilities, unemployed people, poor families, Rroma people.*

1. Introduction

At European level, the Lisbon European Council (2000) to combat social exclusion proposed in bringing together a coherent package of social, employment and economic policies, all of a high degree of interdependence (Lambru, M., 2010, p. 165).

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Nationally, it is estimated that "was formed, in academia, but also at government level and non-governmental organizations, a considerable level of expertise to measure poverty and social inclusion and a rich history of use of indicators of poverty and social inclusion" (Briciu, C., 2009, p 165).

In this area is recommended careful consideration of this method given that "each of the poverty thresholds, no matter which method should be calculated, include in them a strong dose of subjectivity and relativity" (Pop, M.A., 2009, p . 394).

The fact that recent developments in the social economy does not allow an optimistic estimate highlights the growing importance of monitoring methodologies that can producethe necessary records validate this form of social economy (Arpinte, D.; Cace, S.; Cojocaru, Ș., 2010, p. 79) .

We want to analyse the opinion of the Romanian population on the necessity to help the disfavoured social categories of population. Within such context we will first have to determine clearly the characteristics of the disfavoured categories of population. Thereafter, taking into account the opinion of the communities we will propose a hierarchy of the categories of population that really need social assistance.

The current sociological analysis relies on the responses to a questionnaire. The research will only concern the question *AJUT* from this questionnaire, which has the following phrasing:

AJUT. *In your opinion, how much assistance should the following social categories receive?*

1. Homeless people (L);

2. Unemployed people (M);

3. Old people (V);

4. Orphan or abandoned children (A);

5. People with disabilities (H);

6. Poor people or families (S);

7. Families with more than three children (C);

8. Roma ethnics (R);

9. Others

Question *AJUT* clearly states eight disfavoured social categories, designated by variables: L, M, V, A, H, S, C, R. The significance of these variables has been already explained within the question *AJUT*.

2. Methodological aspects

The current study was conducted within the project entitled INTEGRAT Resources for the socially excluded Roma women and groups. The project is co-financed from the European Social Fund, through the Sector Operational Program – Human Resources Development 2007-2013. It was implemented by the Association for Socio-Economic Development and Promotion CATALACTICA, in partnership with the Institute for Quality of Life Research – Romanian Academy and BOLT International Consulting.

Sample E used in this research includes 3918 persons and it is representative at the national level. The selection of the persons included in sample E was done randomly from the population of Romania. However, only a third of the individuals from sample E were interviewed on the necessity to aid the social categories mentioned in question $AJUT$ (variables L-R). The respondents had to meet compulsorily some conditions.

The responses to question $AJUT$ are coded as follows:

1 = "very little ";

2 = "little";

3 = "much";

4 = "very much".

The use of a scale with just four possibilities of answer avoided the situation of "compromise" brought in by a possible intermediary variant of answer, such as "satisfactory". This forced the undecided people from sample E to take a decision between two radically opposite situations: "very little"- "little", and "much" - "very much".

Obviously, the classification of the answers will be done in relation with the distribution of the discrete variables L-R. We also suggest the use within this context of some statistical procedures oriented towards the multidimensional scaling.

Given the rather low number of possibilities of answer (codes 1-4) regarding the behaviour of variables L-R repartition, we will rather use the first two moments of these random variables. The distributions of the answers regarding categories L-R are characterised partially both by the means and by the mean square deviation of the variables from $AJUT$.

Furthermore, the values of the mentioned statistical parameters have an obvious signification in the present sociological analysis. For instance, a low mean and a high dispersion for variable X signifies that usually, most of the population preferred

variants 1 or 2 of response ("very little ", possibly "little"); however, there was a large diversity of answers of the population (large dispersion of the answers).

We decided to use indicator amp_X (mean square deviation) not the actual dispersion amp_X^2 of the random variable X, because both the indicator amp_X and μ_X *mean* presume the use of the same measure unit. The use of both μ and amp^2 parameters would produce a bi dimensional graph which distorts the real relations between the repartitions of L-R variables. In this latter situation the correct interpretation of the graph is largely obstructed because of not using a common measuring unit.

The determination of a biunivocal functional relation, linear for instance, between indicators μ and amp easies substantially the classification of studied variables L-R. In this case we may actually refer to a single parameter, μ or amp, which makes it possible to compare any two repartitions. In a one-dimension representation, relation "lower" is always a total relation.

In the next sections we will reveal the existence of an approximately linear connection between parameters μ and amp which characterise the repartitions of variables L-R. More precisely, $\mu = a + b \cdot amp$, where $b < 0$.

Since $b < 0$, it results that for larger values of μ mean, low values will be obtained for the mean square deviation amp, and reciprocally, low values of parameter amp produce rather large values of μ mean.

Therefore, in the hypothesis of a linear relation between μ and amp with $b < 0$, when the population evaluates extremely positively and in consensus the situation X, we obtain large values for μ_X mean. This is not what happens for relatively low values of μ_X mean, when the scores which the population gives to variable X are not too high and not homogenously expressed (*E* contains subgroups with diverging opinions noticed for too large values of parameter amp_X).

The classification of X repartitions in relation with the values of moments μ_X, amp_X can also be done when there is no biunivocal relation between the parameters of these repartitions. We must take into consideration, however, that in such case, the classical relation of order $"<"$ between the distributions of variables X and Y usually is partial, rather than total. More precisely, variables X and Y might have repartitions which are not comparable if we use the relation of order $"<"$.

Sample *E* counts 3918 individuals of which only 1291 persons (about 33%) have actually answered for variables L-R of question *AJUT*. Of the total 3918 persons from sample *E*, 2534 persons (64.7%) were not selected to answer because they didn't meet some criteria related to the interference of the respondents with the disfavoured groups L-R. Of the 1384 persons which were finally selected to answer question *AJUT,* 93 persons were invalidated (6.7%). The rather low proportion of the "absent" individuals, about 6.7%, doesn't alter substantially, however, the statistics provided by the respondents from sample *E*.

Table 1
Frequencies of the variables associated to question AJUT

Sample E		Variables								
Res-ponse	Cod	L	M	V	A	H	S	C	R	Other
Valid	NR	86	79	79	81	78	86	88	134	*1193*
	1	28	27	23	12	10	21	46	296	*10*
	2	155	150	189	58	67	152	233	299	*12*
	3	585	570	560	465	514	577	544	324	*38*
	4	437	465	440	675	622	453	379	238	*38*
	Total	1291	1291	1291	1291	1291	1291	1291	1291	*1291*
Lacking	Doesn't belong	2534	2534	2534	2534	2534	2534	2534	2534	*2534*
	Belongs	93	93	93	93	93	93	93	93	*93*
	Total	2627	2627	2627	2627	2627	2627	2627	2627	*2627*
Total		*3918*	*3918*	*3918*	*3918*	*3918*	*3918*	*3918*	*3918*	*3918*

Table 1 gives details on the characteristics of sample *E* in the case of question *AJUT*.

Among variables L-R, the highest percentage of non-answers, 10.4%, was for variable R which defines the Roma ethnics (134 non-answers out of a total 1291 interviewed people, Table 1). For all the other variables of *AJUT* the proportion of non-answers was much lower, not exceeding 6.8%.

Therefore, the valid answers from sample *E* evaluate sufficiently exactly the real situation regarding the entire population.

This is why when defining the repartition of variables L-R we will not take into considerations the non-answers (NR).

In *Table* 2, the repartitions of variables L-R are expressed in percentage. A quick view using histograms shows all these repartitions to be rather similar. The exception is obvious, however, for the completely different distribution of variable R regarding the assistance provided to the Roma population (see the percentages listed in *Table* 2).

Table 2
Repartition of variables L-R (percentages)

Sample E	Variables							
Code	L	M	V	A	H	S	C	R
1	2.3	2.2	1.9	1.0	0.8	1.7	3.8	*25.6*
2	12.9	12.4	15.6	4.8	5.5	12.6	19.4	*25.8*
3	48.5	47.0	46.2	38.4	42.4	48.0	45.3	*28.0*
4	36.3	38.4	36.3	55.8	51.3	37.7	31.5	*20.6*
Total	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*

Variable "Other disfavoured categories" has a very high level of non-answers (1193 of a total of 1291 respondents, which means 92.4%, *Table 1*), which prompted us to remove it from this statistical analysis.

3. Interpretation of the responses to AJUT

Having in view that very many of the repartitions of variables L-R which define the question *AJUT* are rather similar, it is rather difficult to order these variables relying exclusively on the interpretation of the relation between the resulting histograms.

Using some ideas presented in the methodological section, we will subsequently analyse the classification of variables L-R repartitions, referring exclusively to their defining parameters, the moments of order one and two (μ mean and the mean square deviation *amp*).

Table 3 shows the actual values of parameters μ and *amp* for all variables L-R characterising the question *AJUT.*

A first interpretation of the data from Table 3 shows clearly some structural characteristics regarding the question *AJUT*:

• Ordering increasingly μ means of variables L-R we obtain the following hierarchy of the disfavoured categories of population, as it was perceived by the population: R (the Roma population), C (families with more than three children), V (old people), L (homeless people), M (unemployed people), S (poor persons or families), H (people with disabilities), A (orphan or abandoned children).

Therefore, the population wants most to help the orphan or abandoned children (variable A) and the people with disabilities (variable H), but it shows reticence to support the Roma people (variable R) and less reticence to support the families with many children (variable C).

Values of parameters μ and amp for variables L-R

Parameters	Variables							
	L	**M**	**V**	**A**	**H**	**S**	**C**	***R***
mean	3.188	3.215	3.169	3.490	3.441	3.215	3.045	*2.436*
amp	*0.741*	*0.742*	*0.753*	*0.637*	*0.638*	*0.726*	*0.813*	*1.081*

• The increasing ordering of the mean square deviations amp for variables L-R yields an apparently very different hierarchy, as follows: A (orphan or abandoned children), H (people with disabilities e), S (poor persons or families), L (homeless people), M (unemployed people), V (old people), C (families with many children), R (the Roma population).

• Surprisingly, the increasing ordering given by the mean coefficient μ coincides almost entirely with the decreasing order established by amp index. Actually, the two mentioned hierarchies are identical if we make abstraction of the permutation of variables L (homeless people) and M (unemployed people). The mean square deviation of these two variables differs very little, just by 0.001 (*Table 3*), aspect which would require the same position of indicators L and M in the classification based on amp values.

The two-dimensional image of L-R repartitions using μ means and the mean square deviations amp as Cartesian coordinates is a much more eloquent illustration of the relations between the distributions of variables L-R (*Figure 1*).

The two-dimensional image of L-R repartitions from *Figure 1* reveals several important aspects, as shown below:

• If we accept only two classes consisting of the disfavoured groups L-R, one class will include the Roma people (variable R), while the other will include all the remaining seven disfavoured categories of population (variables C, V, L, M, S, H, A).

Therefore, the population perceives a clearly different treatment of the Roma in relation with the other categories of population that require social assistance. The support of the Roma people is seen with a high degree of distrust by the communities, and therefore the Roma people scored the lowest ratings (*Figure 1*).

• Variables V (old people), L (homeless people), M (unemployed people), S (poor people) are rather similar and define a separate class of disfavoured persons (*Figure 1*).

• We may say the same thing about variables H (people with disabilities) and A (abandoned children): these two variables are closely related (*Figure 1*).

• If we are to distribute the people requiring support in just four distinct classes, we will obtain the following groups:

  − Group G1: the Roma people (variable R);

  − Group G2: families with more than three children (variable C);

  − Group G3: old people, homeless people, unemployed people and the poor persons or families (variables V, L, M, S);

  − Group G4: the people with disabilities and the orphan or abandoned children (variables H and A).

The social categories belonging to one of groups G1-G4 are perceived very similarly by the entire population in terms of their need of assistance.

Figure 1
Two-dimensional location of the repartitions of variable L-R
(score 1-4)
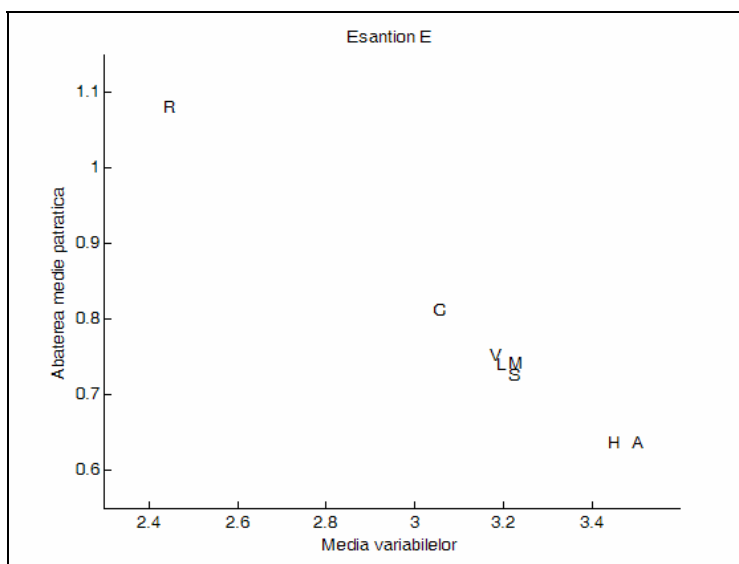
• If we want to operate with just three classes of persons requiring social assistance, we will have to merge groups G2 and G3. Indeed, variable C which defines group G3 is closer to the set of variables V, L, M, S (group G2) than to groups G1 or G4 (see *Figure 1*).

The following classes will result:

- − Class C1: the Roma people (variable R);
- − Class C2: the families with many children, the old people, the homeless people, the unemployed people and the poor people (variables C, V, L, M, S);
- − Class C3: the people with disabilities and the orphan or abandoned children (variables H and A).

• Monitoring the actual position of variables L-R in *Figure 1* we can see an almost linear location of L-R points. More precisely, between μ means of L-R responses and the corresponding mean square deviations amp, there is a relation of the following form: $\mu = a + b \cdot amp$ with $b < 0$, the error or approximation being extremely low (*Figure 1*).

Since the value of parameter b is strictly negative, it results that the classification of variables L-R in relation with their μ mean is inversely oriented compared to the classification of the same variables in relation to the values of amp indicator. This result has already been confirmed by a previous analysis (*Table 3*).

Furthermore, the negative value of parameter b makes that at low values of μ mean, we obtain high values for the mean square deviation amp and reciprocally, at high values of μ mean, we obtain low values for the mean square deviation amp (*Figure 1*).

Therefore, variables X with high μ_X means are less fluctuating, most of the population acting according to a properly defined trend. On the other hand, variables X with low μ_X means have rather high fluctuations, which show quite different evaluations about group X within the studied communities.

Concretely, interpreting the graphic illustration from *Figure 1* we notice especially that:

• The individual from sample *E* are least inclined to help the Roma people, the μ_R mean of variable R being the lowest of all μ means of the disfavoured categories of population L-R. Since the mean square deviation amp_R of variable R has the highest value, it results that the population is extremely heterogeneous in granting social assistance to the Roma population (*Figure 1*).

• The population chooses to support with priority the orphan or abandoned children (A), followed by the people with disabilities (H). The mean square deviation amp of variables A and H are the lowest of all the set of variables L-R (*Figure 1*, *Table 3*).

This presumes implicitly the existence of a general consensus of the population to support the disfavoured groups A (abandoned children) and H (people with disabilities).

5. Nuanced interpretations

Using different approaches we will validate in this section the outcomes already obtained and will provide additional statements. At the same time we will discuss the correctness of the statistical methods that were used.

4.a. Modification of the measuring scale

Obviously, the μ means and the mean square deviations amp of variables L-R will have different values when the evaluation of the respondents "very little ", "little", "much", "very much" will not be scored on a scale from 1 to 4.

The questionnaire compelled the respondents to provide a clear position as to their intention to grant social aid to a specific category of disfavoured population. Actually, responses such as "very little "or "little" for variable X show that the respondent is not actually prone to support category X. On the other hand, responses such as "much" or "very much" signify a positive intention of the respondent in favour of assisting the disfavoured category of population X.

The design of the questionnaire willingly avoided the intermediary variant of answer such as "equally", which most undecided respondents might have used.

A natural question that arises concerns the veracity of the research outcomes. Could we accept the conclusions already presented if we were to modify the ordinal scale of 1 to 4 which we used initially? The assignment of scores on a scale of 1 to 4 obviously has a subjective character.

We will now analyse the position of variables L-R in relation with μ mean and with the corresponding mean square deviation amp when we assign the following scores to the answers to *AJUT* question:

  1 = "very little";

  3 = "little";

  4 = "much";

  6 = "very much".

Figure 2
Position of variables L-R (response scores: 1, 3, 4, 6)
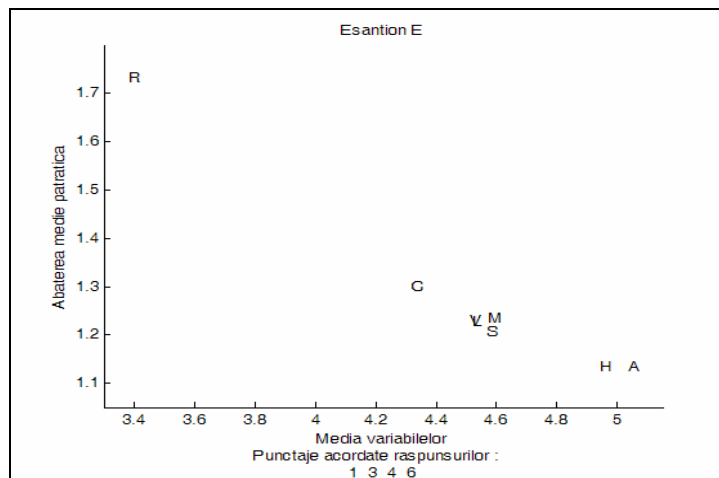
Following is the justification for choosing this new scale of measurement:

- Like in the first variant with score on a scale from 1 to 4, we also avoided the type of answer "equally", situation which might have disturbed a clear-cut decision of the "undecided" respondents.

- In order to stress a "smoother" transit between the intermediary variants of response "little" and "much", we will impose the condition that the difference *"much" - "little"* is lower than the difference *"very much" - "much"*, respectively *"little" - "very little"*.

- The concrete way to evaluate the real situation concerning the aids for the disfavoured categories of population imposes the symmetry of the response scores to *AJUT* question, in relation with the hypothetical state of balance "equally".

- The new encoding reveals better the extreme options of the respondents by increasing the difference between the limit situations: "very much", "very little.

Figure 2 shows the two-dimensional representation of the population's option to assist the disfavoured categories of population L-R using the new scoring values $\{1, 3, 4, 6\}$.

The direct comparison shows that the position of variables L-R in *Figure 2* resembles with that from *Figure 1*. Therefore, the choice of the scale of answers doesn't affect

in a decisive manner the conclusions from section 4 regarding the evaluation of the responses to question *AJUT*.

The use of the single value method might remove for good the distrust due to the "improper" selection of the scores assigned to the different variants of answer.

4.b. The partial relation of order regarding the variables from AJUT

Assigning different scores to the different responses presumes the assumption of an apparently uncontrolled degree of subjectivism. We may remove this dilemma by referring exclusively to the repartition of the simple discrete random variables L-R, not to the actual values which these variables may take with a specific probability.

Our purpose is to classify variables L-R, and for this we will need to define a relation of order for the multitude of these variables.

We will say that variable X is smaller than variable Y, that is to say, $X < Y$, if the (cumulative) function of repartition of variable Y always has lower values than the function of repartition of the random variable X.

To simplify the expression we will write $X > Y$ when $Y < X$, the relation $"<"$ being already stated. $X = Y$ When the repartitions of variables X and Y coincide.

Table 4 shows the situations of subordination existing between the variables from question *AJUT*. By $"-"$ we have designated the variant in which the random variables cannot be compared between them. Thus, according *Table 4* to we cannot compare directly the random variables L and V.


Table 4
Relations between AJUT variables

	L	M	V	A	H	S	C	R
L	=	<	-	<	<	<	>	>
M	>	=	-	<	<	-	>	>
V	-	-	=	<	<	<	>	>
A	>	>	>	=	-	>	>	>
H	>	>	>	-	=	>	>	>
S	>	-	>	<	<	=	>	>
C	<	<	<	<	<	<	=	>
R	<	<	<	<	<	<	<	=

Therefore, the relation of order $"<"$ defined previously is not a total relation; there may be couples (X, Y) of random variables which cannot be classified. Actually, relation $"<"$ is the best known of the relations of stochastic order mentioned in the literature.

We will present graphically the subordination relations from *Table 4* for *AJUT* variables*.*

Thus, when $X < Y$ we will draw an arrow from X node to Y node. The resulting lattice of order is shown in *Figure 3*.

Figure 3
Lattice of order for AJUT variables
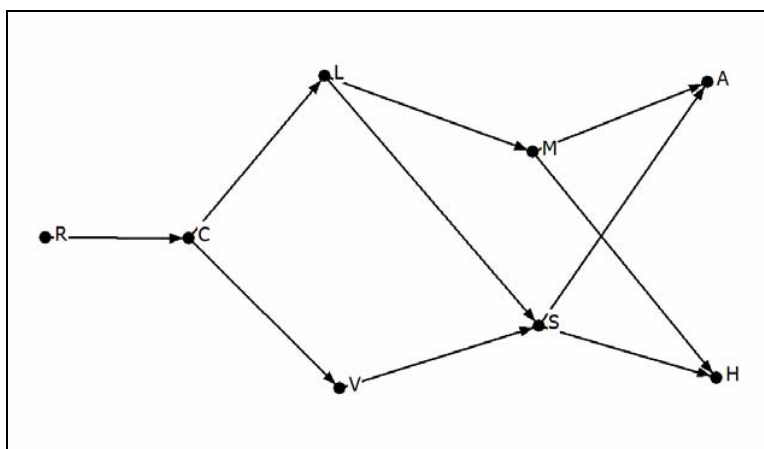
Interpreting the graph in *Figure 3* we may reveal the following aspects:

- Compared to the other disfavoured categories, the population wants least to assist the Roma ethnics (variable R). Compared to the Roma, the families with more than three children (variable C) have a higher priority of support.

- Categories A (abandoned children) and H (people with disabilities) is seen by the population as the most entitled to assistance.

- The disfavoured groups of population L (homeless people), V (old people), M (unemployed people) and S (poor people) are ranked somehow at the middle when evaluating the investigated groups of population.

- The studied population didn't ensure a priority of action by the direct comparison of the following categories of people in need: (L,V) "homeless people – old people", (M,S) "unemployed people poor people", (A,H) "and abandoned children – people with disabilities".

- The graph in *Figure 1* showed the grouping of variables L-R in four classes, namely: $\{R\}$ "the Roma people", $\{C\}$ "the families with many children", $\{V,L,M,S\}$ "old people – homeless people – unemployed people – poor people", $\{H,A\}$ "people with disabilities – abandoned children". *Figure 3* brings additional clarifications to this classification. The "monolith" class $\{V,L,M,S\}$ broke up (*Figure* 1) in two subclasses: $\{V,L\}$ "old people – homeless people", and $\{M,S\}$ "unemployed people – poor people" (*Figure 3*). If we relate only with class $\{V,L\}$ ("old people – homeless people"), *Figure 3* shows clearly that the population wants more to assist class $\{M,S\}$ ("unemployed people – poor people").

- Therefore, the graphical representation from *Figure 3* reveals a 5-level hierarchy of the disfavoured categories of population. The priority of assistance, in increasing order, assigned by the community is as follows: $\{R\}$ "Roma people", $\{C\}$ "families with more than three children", $\{V,L\}$ "old people – homeless people", $\{M,S\}$ "unemployed people – poor people", $\{H,A\}$ "people with disabilities – abandoned children".

- The graph in *Figure 3*, relying on a different statistical model, doesn't contradict the classification given in section 3 (*Figure 1*, *Table 3*), rather it brings nuances.

4.c. Response dependency

We are interested to determine how much the opinion of the population regarding a particular disfavoured category X influences the evaluation given by the same community to another group, Y. Within this context we will only interpret the value of the Pearson correlation coefficients with the view to measure the level of linear dependency existing between variables L-R.

Table 5 shows the correlations between variables L-R characterizing the question *AJUT*.

Table 5
Values of Pearson correlation between
the variables of AJUT *question*

Correlation	L	M	V	A	H	S	C	*R*
L	1.000	0.709	0.733	0.720	0.718	0.747	0.684	*0.547*
M	0.709	1.000	0.700	0.690	0.688	0.728	0.687	*0.593*
V	0.733	0.700	1.000	0.773	0.762	0.775	0.701	*0.514*
A	0.720	0.690	0.773	1.000	0.851	0.766	0.676	*0.476*
H	0.718	0.688	0.762	0.851	1.000	0.785	0.683	*0.502*
S	0.747	0.728	0.775	0.766	0.785	1.000	0.766	*0.568*
C	0.684	0.687	0.701	0.676	0.683	0.766	1.000	*0.636*
R	*0.547*	*0.593*	*0.514*	*0.476*	*0.502*	*0.568*	*0.636*	*1.000*

Examining the value of the correlations shown in *Table 5* we may reveal the following aspects:

● The correlations from *Table 5* always have large positive values, which shows the intention of the population the support all disfavoured categories of population L-R. Indeed, the existence of strong and positive correlations between two disfavoured groups X, Y presumes the fact that the population scored largely similar values to those groups.

● The high, but negative values of the correlation coefficient between variables X and Y show the existence of opposite evaluations of categories X, Y. Since in *Table 5* all the correlation coefficients between variables L-R are non-negative, we cannot say that the surveyed population has the systematic intention to assist a particular disfavoured social category to the detriment of another category also requiring social support. Therefore, the behaviour of the surveyed population is not discriminatory, it just has a higher or lower level of "mistrust" regarding the disfavoured groups L-R that are to be assisted.

This last aspect strengthens the previous conclusion that the entire population is willing to assist the disfavoured social categories without any discrimination. This shows the existence of a general consensus.

● The highest correlation has the value of 0.851. It occurred between variables A (orphan or abandoned children) and H (people with disabilities). The respondents from sample *E* who scored high category A, also scored high category H.

This confirms one of the previous conclusions that the population is willing with priority to assist both disfavoured categories A (abandoned children) and H (people with disabilities).

● The lowest correlation has the value of 0.476 and it was noticed between variables R (Roma people) and A (abandoned children). This shows that may of the respondents who expressed their readiness to help the abandoned children were much less ready to support the Roma people.

● Of all the disfavoured categories L-R of population, only the Roma people (category R) correlates the least with all the other L-R variables (*Table 5*). This shows a relative disagreement of opinions within the surveyed community, the Roma being treated in a rather differentiated manner by the population.

● If we would give up variable R (the Roma), the rest of variables L-R are strongly and positively correlated, the value of the Pearson coefficients being rather similar (usually between 0.7 and 0.8). This shows that the respondents from sample *E* support in a unitary manner all the disfavoured categories L-R of population, but they have a lower support for the Roma people.

We can thus notice a relative in homogeneity of the population in adopting a clear and unitary attitude towards the Roma people.

In order to have a better image of the community decisions on its intention to support the different disfavoured categories L-R, we calculated an average correlation between each X variable and all the other variables from group L-R (*Table 6*).

Table 6
Average correlations between one variable and the rest of the variables

Variable	L	M	V	A	H	S	C	*R*
Correlation	0.694	0.685	0.708	0.707	0.713	0.734	0.690	0.548

A lower average correlation of variable X with the other L-R variables means that the option of the population to support category X is not quite related with the intention of the community to support all the other disfavoured L-R social groups. This is the case of the Roma people, the average correlation between variable R and the rest of L-R variables being the lowest (*Table 5*).

More precisely, the correlation is 0.55 for the Roma people and much different, around 0.70, for all the other *AJUT* variables, many time even above this value (*Table 5*).

The homogeneity of the average correlation, of about 0.70, in *Table 5*, for all the disfavoured categories except the Roma ethnics, shows the different position of the communities in relation with the Roma people compared to the rest of individuals or families requiring social support.

In conclusion, a different statistical model based on dependence analysis confirmed the distrust of the population in the necessity to support the Roma ethnics.

The correlation analysis suggests that the division of the disfavoured groups in just two classes would yield the multitudes $\{R\}$, and $\{C, L, M, V, S, H, A\}$ (*Table 5*), as also suggested by *Figure 1*.

4.d. One-dimension classification of L-R categories

Reinterpreting *Figure 1* we will notice a linear arrangement of L-r points.

More precisely, there is a linear relation between μ_X means and the mean square deviation amp_X of any random variable X from L-R set:

$$\mu_X = a + b \cdot amp_X$$

The existence of this linear relation will reduce the two-dimension representation of variables L-R according to parameters μ, amp (*Figure 1*) to a one-dimension representation. This time we will only consider the fluctuation of just one of the parameters μ or amp.

Differentiating the disfavoured categories of population L-R according to the value of μ means of variables L-R we will obtain the graph shown in *Figure 4*.

The one-dimension representation from *Figure 4* obviously simplifies the interpretation of the two-dimensional image shown in *Figure 1*. Furthermore, the relation of order "lower" is a total relation in the one-dimension situation and thus we may compare any-time, any two categories from L-R set (*Figure 4*). Overall, the relative distance between variables L-R in *Figure 4* are much easier to perceive comparatively and interpret.

Figure 4
Classification of AJUT variables according to their average value
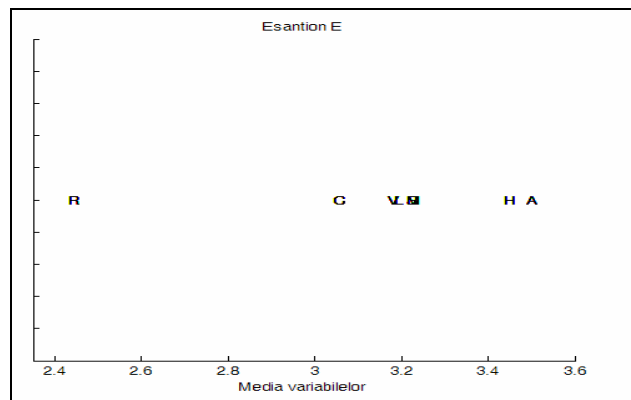
All the conclusions enumerated in the previous sections are clearly confirmed when analyzing *Figure 4* or *Table 4*. Here are some remarks:

● The population is less willing to assist the Roma ethnics (variable R).

● Categories A (orphan or abandoned children) and H (people with disabilities) are seen extremely positively by the communities in terms of support

● Ordering in decreasing scale the means of variables L-R we obtain the following classification of the priorities of social assistance expressed by the population: A orphan or abandoned children), H (people with disabilities), M (unemployed people), S (poor families), L (homeless people), V (old people), C (families with many children), R (Roma people). Therefore, in terms of necessity of support, the population puts the orphan and abandoned children on the first place and the Roma people on the last position.

● In terms of intention of support, the group of Roma people (R) differentiates clearly from the rest of disfavoured social categories (*Figure 4*). The Roma are seen with very much circumspection by the community. We can thus clearly distinguish at least two classes: $\{\, C,\, L,\, M,\, V,\, S,\, H,\, A\, \}$, and $\{\, R\, \}$ (*Figure 4*).

● Obviously, the image from *Figure 4* depends on the actual scores assigned to the different types of answer to *AJUT* question. Choosing other scores will modify the means of variables L-R. If other scores, different from the variant 1-4, maintains, however, the previous conclusions (see the justification presented in sections 5.1-5.2).

4.e. Intention of the population to support the disfavoured categories

We want to make clear whether the population really wants to assist the disfavoured social categories L-R.

A first answer is suggested by *Table 3* or *Figure 4*.

More precisely, accepting the response scores 1-4 for *AJUT* question, values which are symmetrically placed in relation with a "point of balance" of 2.5, we may say that a disfavoured category X whose μ_X mean exceeds 2.5 has a "positive" image in the community. In such situation the population is willing to grant social subventions to group X.

Using the same reasoning we will analyse the group of the Roma people which is located slightly to the left of the threshold of 2.5: $\mu_R = 2.436 < 2.5$. Also see the position of point R in the graph from *Figure 4*. Therefore, most of the population displays reticence about granting social aids to the Roma people.

On the other hand, all the other disfavoured social categories (families with many children, old people, homeless people, poor families, unemployed people, people with disabilities, abandoned children) have their μ mean over the threshold of 2.5, even more $\mu > 3.0$ (*Figure 4*, *Table 3*). We can thus say with certainty that the population actually intends to assist all the groups mentioned above.

A shortfall of this procedure of statistical analysis is that it relies on the subjective values 1-4 assigned to the variants of answer to question *AJUT.* Changing the scores 1-4 might contest partially some of the previous conclusions.

Following is a new approach which doesn't use actual scores for the answers regarding variables L-R.

More precisely, the answers such as "very little" or "little" to question *AJUT* signify a real low intention of the respondents to support the particular social categories.

A strong, "effective" intention to support groups L-R by the community is displayed by responses such as "much" and "very much".

The opinions of the respondents from sample *E* are centralised using the frequencies (*Table 7*) or normalising these frequencies (percentages in *Table 8*).

Table 7
Opinion of the population regarding the assistance
of categories L-R (frequencies)

Population willingness to assist	Disfavoured categories							
	L	M	V	A	H	S	C	R
Little/very little	183	177	212	70	77	173	279	595
Much/very much	1022	1035	1000	1140	1136	1030	923	562
Total	1205	1212	1212	1210	1213	1203	1202	1157

Table 8
Opinion of the population regarding the assistance
of categories L-R (percentages)

Population willingness to assist	Disfavoured categories							
	L	M	V	A	H	S	C	R
Little/very little	15.2	14.6	17.5	5.8	6.3	14.4	23.2	51.4
Much/very much	84.8	85.4	82.5	94.2	93.7	85.6	76.8	48.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

As sample *E* is representative at the national level (at least 1150 people were interviewed, *Table 7*) it results that the results are applicable to the entire population of Romania.

The intention to support the disfavoured categories L-R can be measured directly using the cumulated percentage of responses "much" + "very much".

The graph shown in *Figure 5* synthesizes the willingness of the population to grant social aid to the disfavoured categories L-R.

The following conclusions can be drawn from the graph shown in *Figure 5*:

● Generally, the population is willing to assist all the disfavoured social categories L-R. Little less than 50% of the respondents of sample *E* really want, however, to assist the Roma people (48.6%, *Table 8*).

● All the other disfavoured categories, except for the Roma people, are potentially supported by about 80% of the population, the percentage reaching 94% in the case of the people with major disabilities, the orphan or abandoned children (*Table 8*).

Practically, the entire population is willing the support the people with disabilities and the abandoned children.

Figure 6 reconfirms the results mentioned in the previous sections.

Figure 6
Willingness of the population to support the disfavoured categories L-R
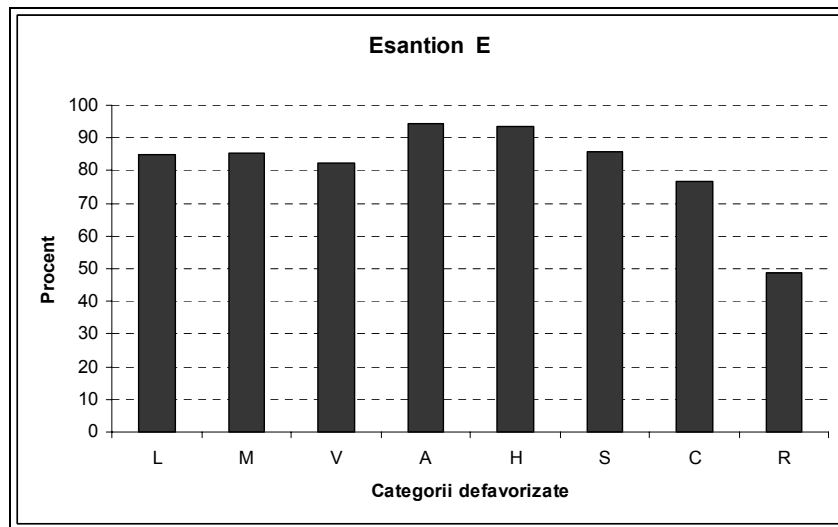
5. Conclusions

- There are differences, many times not too large, between the repartitions of the disfavoured categories L-R defining the question *AJUT* (*Table 1*). The use of the graphical representation of these repartitions to make a hierarchy is difficult and inconclusive. Within this context we preferred to characterise the studies repartitions using their mean and the mean square deviation (*Figure 1*).

- A hierarchy was established showing the need to support the disfavoured categories L-R. The decreasing order gives the following classification of groups L-R (*Figures 1* and *4*): A (orphan or abandoned children), H (people with disabilities), M (unemployed people), S (poor families), L (homeless people), V (old people), C (families with more than three children), R (Roma people).

- The entire population gives the highest priority to the support of the orphan or abandoned children (variable A) and the people with disabilities (variable H) (*Table 3*, *Figures 1-5*). Besides this extremely positive evaluation, the dispersion of variables A and H are the lowest, which actually reveals a consensus within the population to support these social categories.

- The community is obviously reticent to assist the Roma ethnics (variable R) and even the families with more than three children (variable C). These aspects are revealed particularly in *Figures 1-5* and in *Table 3*.

Because the mean square deviation amp of variable R has the highest variation within the entire L-R set, it results that the population is extremely inhomogeneous in its willingness to grant social assistance to the Roma people (*Table 3*).

- As the Roma people usually have many children, the location of variable C next to variable R might also be conditioned by this aspect (see *Figures 1- 3*). An additional statistical analysis, relying on a possible causal pattern, might determine the intensity of variable R (Roma people) influence on variable C (families with many children).

- Most of the population is willing to support all the social categories L-R, with some reticence, however, for the Roma people. More precisely, about 80% of the population, reaching up to 94%, is willing to support the groups in difficulty (*Table 8*, *Figure 5*).

- Only half of the population really wants to assist the Roma (*Table 8*, *Figure 5*). The Roma are the only category for which the score calculated for receiving social assistance is below the critical threshold of 2.5. All the other social categories have a significantly higher score, greater than 3.0, which will not produce a situation of "decision-making incertitude" (*Figure 4*).

- We can clearly distinguish at least two large classes of disfavoured people. On the one hand we have the Roma people, while on the other hand we have all the other

groups of people with problems. Therefore, in a first analysis we notice classes: $\{\,R\,\}$ and $\{\,C,L,M,V,S,H,A\,\}$ (*Figure 4*).

- All Pearson correlations between variables L-R have high and very high positive values. As no negative correlations were noticed between variables L-R, it results that the population is really willing to assist the groups experiencing social difficulties (*Table 5*). However, we do notice a nuance for the Roma people, as revealed in section 5.3 and in the differentiated interpretation of *Table 5*, with and without variable R.

The aspect of homogeneity of the mean correlations values for all the disfavoured social categories, except for the Roma people, suggests the different position of the Roma ethnics in the perception of the population (*Table 6*).

- The Roma people usually poor people, Within this context, the Roma people could be easily included in groups S, M, L or C which define the "middle" classes from the proposed classification (see *Figures 1-4*).

However, the Roma problem is clearly different than the typology of the other groups, as shown by the entire statistical analysis (particularly *Figures 1-5*). We may safely say that the people perceive the Roma people completely different than the other disfavoured categories. Low levels of education that Roma are generally directly related to a low level ofemployment, occupations devalued in society and, consequently, low income (Surdu, L., 2010, p. 61).
Within such context a further study is needed to deepen the observed aspects.
- The statistical analyses revealed that the surveyed population doesn't have a discriminating attitude towards the Roma ethnics; rather it has a perceptible level of "distrust".

- These conclusions have been confirmed by several statistical models applied in parallel, which ensure the validity of our statements.

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