

# **ROOTLESS AND CLUSTERED ENVIRONMENTALLY SIGNIFICANT CONSUMPTION.**

A case study from Cluj-Napoca (Romania)

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## **Objective of the research and theoretical grounding**

- preliminary data regarding the environmental attitudes and behaviours of Cluj-Napoca's citizens in terms of:

- frequencies, endorsement according to social, axiological and environmental backgrounds;

- assessing the relevance of some widely known theories and models:

- value-belief-norm theory (Stern et al., 1999; Stern, 2000)

- schematic causal model of environmental concern (Stern et al., 1995)

according to which environmentally significant attitudes and behaviours are embedded into or are consequences of a general environmental belief system or worldview.

E.g.:

social structural variables => axiological variables => **environmental worldview**  
=> environmental attitudes => environmental behaviours.

Environmental worldview – *New Environmental Paradigm*

- preliminary data regarding the endorsement of the NEP by adult Romanian urban citizens.

### **Research design**

- quantitative study – sociological survey
- **sample design:** zones + itineraries + quotas (N=586)
- representative for the adult population of Cluj-Napoca ( $r=+/-4,3$ ;  $P=0,95$ )
- field research June-July 2007
- **questionnaire design:**
  - social and structural variables (age, gender, education, income, etc.)
  - axiological variables (postmaterialism, egalitarianism, liberalism, traditionalism)
  - environmental worldview: NEP
  - specific environmental attitudes
  - specific environmental behaviours.

## Variables

**Dependent:** environmentally significant behaviours from the domestic space

- *buying eco-efficient electric goods instead of normal, even the former cost more than the latter;*
- *selective waste collection;*
- *economical use of current water;*
- *buying cloths from the second hand;*
- *buying locally/nationally produced goods instead from goods from the import.*

**Independent:** social-structural, axiological, environmental variables

### Environmental independent variables:

- ***New Environmental Paradigm (NEP)*** measured by the six item scale:

1. *The balance of nature is very delicate and easily upset by human activities.*
2. *The earth is like a spaceship with only limited room and resources.*
3. *Plants and animals exist primarily for human use.*
4. *Modifying the environment for human use seldom causes serious problems.*
5. *There are no limits to economic growth for Romania.*
6. *Humans were created to rule over the rest of nature.*

### **Specific environmental attitudes**

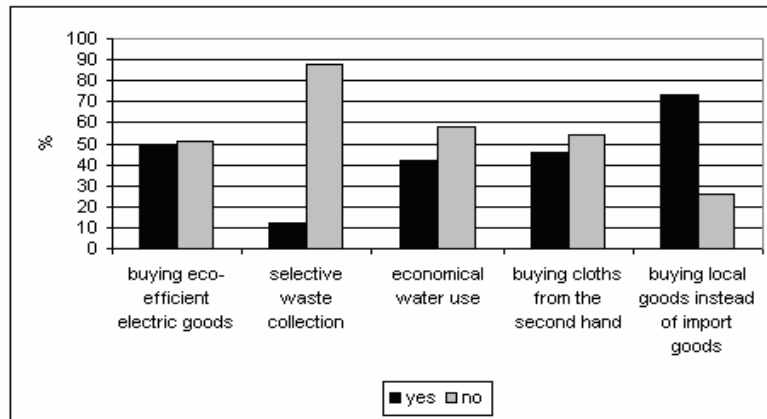
- evaluation of the seriousness of eight local environmental problems:
- *waste collection and disposal;*
- *availability of green spaces;*
- *availability of public transport facilities;*
- *noise;*
- *agglomeration due to traffic;*
- *quality of the air;*
- *quality of the drinking water;*
- *quality of the sewage system*

### **Hypothesis of the research:**

1. *NEP exercises a positive influence on the effectuation of environmentally significant behaviours.*
2. *NEP exercises a positive influence on specific environmental attitudes.*
3. *The positive relationship between the NEP and the behaviours is mediated by the specific environmental attitudes.*

## Results

- frequency of the behaviours:



- dimensionality of the behaviours (principal component analysis):

|   | Factors |      |
|---|---------|------|
|   | 1       | 2    |
| Eco-efficient electric goods                    |         | 0.61 |
| Selective waste collection                      |         | 0.74 |
| Economical use of water                         | 0.60    |      |
| Cloths from the second hand                     | 0.69    |      |
| Preference for local goods                      | 0.76    |      |
| Explained variance                              | 30%     | 25%  |
| KMO   | 0.499   |      |
| Significance of the Bartlett test of sphericity | p<0.001 |      |

2 factors/dimensions/clusters:

**Type 1 behaviour/consumption:**

- economical use of water
- buying cloths from the second hand
- preference for buying local goods

**Type 2 behaviour/consumption:**

- buying eco-efficient electric goods instead of normal
- selective waste collection

-endorsement of the type 1 behaviour/consumption:

|                              | Model 1 | Model 2 | Model 3 | Model 4 |
|------------------------------|---------|---------|---------|---------|
| Age                          | -0.028  | -0.042  | -0.041  | -0.042  |
| Gender (man)                 | 0.003   | 0.033   | 0.031   | 0.033   |
| Education                    | -0.087* | -0.090* | -0.100* | -0.100* |
| Income                       | -0.095* | -0.106* | -0.104* | -0.106* |
| Ethnicity (Romanian)         | 0.081*  | 0.033   | 0.030   | 0.031   |
| Postmaterialism              |         | -0.091* | -0.094* | -0.093* |
| NEP                          |         |         | -0.024  | -0.025  |
| Local environmental problems |         |         |         | 0.030   |
| R <sup>2</sup> (adjusted)    | 0.018   | 0.024   | 0.023   | 0.022   |
| R <sup>2</sup> change        | 0.027   | 0.007   | 0.001   | 0.001   |
| Significance F change        | p<0.05  | p<0.05  | p>0.05  | p>0.05  |

\*p<0.05; coefficients from the table are standardized (Beta).

- endorsement of type 2 behaviour/consumption:

|                              | Model 1   | Model 2   | Model 3  | Model 4  |
|------------------------------|-----------|-----------|----------|----------|
| Age                          | 0.181***  | 0.181***  | 0.182*** | 0.180*** |
| Gender (man)                 | -0.068+   | -0.076+   | -0.077+  | -0.073+  |
| Education                    | 0.367***  | 0.378***  | 0.379*** | 0.377*** |
| Income                       | 0.107***  | 0.102***  | 0.095*   | 0.095*   |
| Ethnicity (Romanian)         | -0.156*** | -0.125*** | -0.127*  | -0.125*  |
| Postmaterialism              |           | 0.090*    | 0.088*   | 0.089*   |
| NEP                          |           |           | -0.016   | -0.017   |
| Local environmental problems |           |           |          | 0.048    |
| R <sup>2</sup> (adjusted)    | 0.171     | 0.177     | 0.176    | 0.176    |
| R <sup>2</sup> change        | 0.179     | 0.007     | 0.001    | 0.001    |
| Significance F change        | p<0.001   | p<0.05    | p>0.05   | p>0.05   |

\*\*\*p<0.001; \*p<0.05; +p<0.1; coefficients from the table are standardized (Beta)

## Conclusions

**Type 1 behaviour** is endorsed by people with lower education, lower income, materialist value orientation => **'constraint based cluster'**

**Type 2 behaviour** is endorsed by people with higher education, higher income, postmaterialist value orientation => **'elitist cluster'**

**The effect of NEP is negative**, statistically not significant on both of the variables => **the first hypothesis is refuted** and so

the first condition for the 3rd hypothesis is not fulfilled (according to Baron and Kenny [1985]).

However specific environmental attitudes are not mediators between the NEP and the two types of behaviours, they seem to have a weak, direct influence on the dependent variables.

The second hypothesis is refuted as well, there is no positive effect of the NEP on the attitudes towards local environmental problems:

|                          | Model 1 | Model 2 | Model 3 |
|--------------------------|---------|---------|---------|
| Age                      | -0.037  | -0.036  | -0.036  |
| Gender (man)             | 0.069   | 0.073   | 0.071   |
| Education                | -0.031  | -0.019  | -0.006  |
| Income                   | -0.057  | -0.060  | -0.057  |
| Ethnicity (Romanian)     | 0.065   | 0.053   | 0.049   |
| Postmaterialism          |         | -0.023  | -0.020  |
| NEP                      |         |         | -0.030  |
| R <sup>2</sup> adjusted  | 0.012   | 0.012   | 0.013   |
| R <sup>2</sup> change    | 0.012   | 0.001   | 0.001   |
| Significance of F change | p>0.05  | p<0.05  | p>0.05  |

-the schematic causal model and the value belief theory seem to not be relevant for our case (attitudes and behaviours could not be embedded into the NEP);

- irrelevance, or 'missing links' are however due not to the fact that the NEP is not accepted, but

- much more due to the multidimensional organization of the environmental belief system

- alongside global – local, general – concrete dimensions.

- arguments in this regard are offered also by the way in which the NEP is endorsed (HEP view only regarding the 5<sup>th</sup> item of the scale)

## Summary

