Roxana Andreea Toma (Costea)

PhD THESIS

Psycho-Social Appearances of Power Intercourse

— Summary —

Scientific coordinator:

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Cluj-Napoca

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SUMMARY

1. ACTUALITY AND IMPORTANCE OF THE TOPIC ................................................. 5
   Empowerment – theoretical and practical aspects .................................................... 6

2. OBJECTIVES, HYPOTHESES AND METHODS OF STUDY ............................... 9
   Objectives .................................................................................................................. 9
     General Objective ................................................................................................. 9
   Research objectives ................................................................................................. 9
   Research hypotheses .............................................................................................. 9
   Instruments used in the study .................................................................................. 9
   Way of processing the collected information .......................................................... 10

3. EXPERIMENTAL DESIGN – METHODS, TOOLS, PARTICIPANTS ............. 11
   a) Experimental factors plan ................................................................................... 11
   b) Participants .......................................................................................................... 12
   c) Comparing measures ............................................................................................ 12
      Validity of the constructed sample ....................................................................... 12
      Fidelity of the constructed trial ............................................................................. 14

4. MAIN RESULTS AND THEIR INTERPRETATION ......................................... 15
   Difference between means/environments ............................................................... 15
   Analysis of significant correlations for the groups considered within the study ........ 16
   Cluster Analysis ...................................................................................................... 22

5. PERSONAL CONTRIBUTIONS .............................................................................. 26

6. STUDY LIMITATIONS AND SUBSEQUENT POSSIBILITIES OF USING THE
   RESULTS .................................................................................................................. 27

7. GENERAL CONCLUSIONS ................................................................................... 29
   ◆ Analysis of EMCOLI questionnaire dimensions .................................................... 29
   ◆ Analysis of the results recorded in the experimental group and in the control group ........ 30
Key words:
empowerment (assumed power), limitative beliefs, self-responsibility, self-assessment, trust in people and opportunities, positive thinking/attitude, change adaptability, attitude, power assuming strategies, interview
1. Actuality and importance of the topic

Empowerment is a construct whose analysis and investigation is far from complete. The first references and studies of the term are rooted in the community and community psychology and link to gaining control over own lives and community integration for disadvantaged groups.

Positive results obtained by disadvantaged groups in the ‘70s – ‘80s have encouraged the development of the studies regarding the diversification of power assuming strategies and emphasizing theoretical dimensions of the construct. The power assuming strategies began being used in educational, organizational and medical domains.

The ‘90s and year 2000 brought many concerns to theoretically delimit the dimension of the construct dimensions and propose more and more complex strategies of development, undertaking and development of the actions based on assuming power in various social categories.

In the Romanian specialized literature, the construct is less used and references are based mainly on translations of foreign authors’ works.

The personal development models by power assuming as proposed by D. Gerson and G. Straub had to be conceptually adapted to the Romanian culture, that is, corresponding concepts had to be found for some concepts in English and others were eliminated as they were not impact conceptual dimensions in the Romanian culture. The exercises based on the power assumption strategy proposed by the authors were a valuable resource materialized in the answers given by the subjects in the group which took the personal development training. The reason for selecting this topic was determined by the lack of theoretical frames and studies to generate data bases for the empowerment construct and its facets.

In order to achieve this goal it was adapted for the Romanian culture and developed an active learning and participatory approach of assuming power and personal development by acquiring control over own lives and selection of the ways of action based on personal resources exploitation.

It was built and validated a tool that aims to diagnose a facet of the empowerment construct - limitative beliefs. The effect and impact of the training based on power assuming
strategies was investigated by already validated samples which focused on motivation and power, by the questionnaire proposed in the research and by the and interview proposed by research. The results obtained by those who have completed the training for personal development were compared with the results of a control group.

**Empowerment – theoretical and practical aspects**

Although there have been attempts to analyze the concept (Gibson 1991, Skelton 1994, Rodwell 1996) in studies which explored issues associated with Empowerment and power concept (Gilbert 1995, Fulton, 1997) they failed to provide a coherent vision for the content of the concept. (Knokkanen, Leino-Kilpi, 2000, p. 235)

Since 1970 ideology has been adopted to promote the rights of the ethnic and sexual minorities, for educational and training programs for organizational development programs and feminist movements. (Knokkanen, Leino-Kilpi, 2000, p. 236)

1. **Critical social theory (critical social theory)** – empowerment is associated with improving the living conditions of oppressed groups, such as racial minorities, women or patients requiring medical care.

   This theory refers mainly to improving the living conditions of the non-privileged. Most research in social and critical theory approaches empowerment in terms of theoretical advantage and qualitative research (Parker & Mc. Farlane, 1991, p. 237, Fulton, 1997). In light of these theories, public institutions and other administrative units constrain certain unprivileged groups, called oppressed groups. From this point of view power and empowerment are social and political phenomena.

2. **Organizational theories** argue that empowerment is associated with delegation of power and individual opportunity to act (take action). Research related to organizational theories and management was developed in the 90s especially in North America.

   According to this research and theories, and empowerment stakeholders demonstrate a positive correlation with the overall good organization and dedication to work. Organizational theories do not relate to oppressed groups. (Knokkanen, Leino-Kilpi, 2000, p. 238). Power is seen as a process, the ability to solve tasks. Empowerment - the opportunity to initiate actions that will lead to positive resolutions both at individual and at organizational (Knokkanen, Leino-Kilpi, 2000, p. 238).
According to this research and theories, the factors involved in empowerment demonstrate a positive correlation with the general wellness in the organization and with work dedication. Organizational theories do not refer to oppressed groups (Knokkanen, Leino-Kilpi, 2000, p. 238). Power is seen as process, as tasks settlement. Empowerment – the opportunity to initiate actions which will generate positive resolutions both individually and organizationally (Knokkanen, Leino-Kilpi, 2000, p. 238).

According to these theories empowerment has impact on personal level: high work satisfaction, high motivation, dedication and organizational autonomy. (Kauter, 1977, 1979, Knokkanen, Leino-Kilpi, 2000, p. 238)

### 3. Social and psychological theories

are based on individual’s development, *empowerment* originates in the individual and it is concerned with the manner of reflecting the individual in the environment.

These theories describe the empowerment from the individual perspective. In the ‘80s studies focused on the content of the concept (Hess, 1984; Rappaport, 1984):

**Definition of the Empowerment concept** (Knokkanen, Leino-Kilpi, 2000, p. 236): in *Oxford English Dictionary* (Simpson & Bradley, 1989) there are mentioned the words “empowering” and “impowering” being used ever since the 17th century in administrative documents.

*Empower (verb) =* legally or formally investment of power or authority; to authorize, to license.

*Empowerment (noun) =* the action of empower, the status of being “empowered”

*Empowerment* as and abstract concept, fundamentally positive, refers to solutions rather than problems. In terms of dynamics – “it takes power on ..." or "gives up power over..."; in other words, power is shared.

In the process of assuming power (*empowering process*) individuals, organizations and communities seek the maximum impact on their lives and the possible available choices (Kieffer, 1984, Gibson, 1991, Knokkanen, Leino-Kilpi, 2000, p. 236). In their point of view, empowerment is associated with growth and development.

*Individual empowerment* as a process implies critical insight and the change of activity patterns therefrom (Knokkanen, Leino-Kilpi, 2000, p. 236).

*Community empowerment* is understood as the union of people in order to attain the common purposes (Rappaport, 1984, Rodwell, 1996). *Empowerment* is described in terms of negation, by its absence.
It is difficult to provide a unanimous definition of the term as human decisions differ from individual to individual, from organization to organization, from different individuals in an organization, etc.

Generally, the interpretation of power is extrapersonal and usually related to coercion, domination, authority, constraint. When the exercise of power is performed by using expertise, action and long duration/attitude it is called legitimate power. Power can also be linked to knowledge, coercion or can be conditioned (Shelton & Parker, 1997; Knokkanen, Leino-Kilpi, 2000, p. 236).

Rappaport said in 1984 that “empowerment is a process, a mechanism whereby people, organizations and communities gain mastery over their lives”.

Conger & Kanungo (1988) develop the concept of Empowerment in the perspective of the motivational theory – instrumental exercise of power, power sharing automatically leading to empowerment.

Power is not a tool to control people, but it is generated by their behaviour, their actions and relations with others.

Individually, power elements consist of the rank, the individual position, the expertise and ability to act and obtain information (Foucalt, 1978, McNay, 1994). An "empowered" person feels able to do things better, even perfect.

The learning-oriented development concept wherein the focus is on motivation and dedication/commitment was noted by Thomas and Velthouse (1990) considering also that power generates energy. From this perspective empowerment means the intensification of power or total energy.

Motivation and risk taking are also included in empowerment. Motivation is linked both to the object of the action and to action itself. The central foundation of this model lies in the ongoing cycle of environment events and relevant conditions and behaviours for the future ones.
2. Objectives, hypotheses and methods of study

**Objectives**

**General Objective**
Emphasizing the impact of enforcement the power assuming strategies by training the participants.

**Research objectives**
Construction and testing of items aimed at assumed power wording in terms of limiting beliefs and life areas.

Identification, awareness and elimination of disadaptive attitudes in line with the participants’ needs of changing through self-perception and self-persuasion strategies.

Stimulate effective thinking by statements in accordance with the individual’s needs of development and with the image of projection of possible egos.

**Research hypotheses**
1. Impact of limitative beliefs on personal and interpersonal power manifestation
2. Effect of limitative beliefs on personality motivational structure
3. Changes in the structure of the limitative beliefs entail changes in the emotional behaviour and the individual's way of thinking in that scope.
4. Creating verbal commands associated with images of the possible ego and repetition thereof entail attitude changes of the individual.

**Instruments used in the study**
- questionnaire prepared by Rotter – ‘locus of control’ to emphasize the way of assigning causality
- preparation of a questionnaire to determine the limitative beliefs, according to the 3 sectors of life
- Self-esteem assessment scale
☐ S-Form personal values
☐ Adaptation to change in organization scale - T.A. Jurdge and Vladimir Pucik
☐ Marlow Crown Scale
☐ Rosenberg scale
☐ Self-efficiency scale – Bandura
☐ SMP – Z Cezare, S. Marke – in order to determine the motivational dimensions emphasized by training
☐ SOC– Paulhus – personal power and power in relations
☐ Semi-structured interview to emphasize the assumed power training impact

The estimated change of attitude was achieved by the conceptual dimensions and consolidation exercises conducted during 4 days within the Empowerment Workshop by D.Gershon and G.Straub.

**Way of processing the collected information**

The results were processed by SPSS program.

The statistic approach had two directions:

- Inferential by construction and testing of the *empowerment* construct measurement tool
- Descriptive, qualitative – comparative analysis of two similar small groups in terms of components to highlight the impact of the *personal development training focused on the idea of change of attitude by empowerment*
# 3. Experimental design – methods, tools, participants

## a) Experimental factors plan

<table>
<thead>
<tr>
<th>Convictions</th>
<th>Power</th>
<th>Needs I</th>
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<td>N1</td>
<td>N5</td>
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<tr>
<td>C5</td>
<td></td>
<td>N5</td>
<td>N9</td>
</tr>
</tbody>
</table>

### Legend
- C1 - self-responsibility
- C2 - self-efficiency perception
- C3 - trust in people and opportunities
- C4 - positive thinking
- C5 - change adaptability
- P1 - personal power
- P2 - power in relations
- N1 - need of performance
- N2 - need of belonging (affiliation)
- N3 - need of aggression
- N4 - need of defence (self-defence)
- N5 - need of conscience
- N6 - need of domination
- N7 - need of exhibition
- N8 - need of autonomy
- N9 - need of taking care of others
- N10 - need of order
- N11 - need of help from others
- N1 - need of self-justification
- NII - need of rational domination
- NIII – aggressive non-conformism
- NIV – passive dependence
- NV - sociability

### Experimental plan

The experimental design is an after-testing one with experimental group and control group.

**Change dimensions:**
- **VD** – attitude manifestation
- **VI** – cognitive and affective aspects of the attitudinal structure

In terms of the analysis of the intervention of the training based on empowerment strategies, a randomized experiment was carried out, applied on independent but similar groups choosing the participants to the required tests. It is the EMCOLI questionnaire to highlight the five dimensions of limitative beliefs SOC (Spheres of Control) to emphasize the sources of power and SMP (Baumrind) to experiment the 1st and 2nd level of needs.
An experimental after-testing design with two equivalent groups of 10 female persons. The control group included persons of the same age, profession and social statutes as the persons in the experimental group.

The following dimensions were measured and compared:

- Empowerment and limitative beliefs – self-responsibility, self-efficiency perception, trust in people and opportunities, positive thinking and change adaptability.
- Power in relations and personal power
- Motivational structure of personality: 1st level and 2nd level needs.

b) Participants

The sample for the validation of the basis beliefs was made of 104 males and females between 18 and 53 years of age, with the average of 23.42 and the standard 6.36 deviation.

It was also made a test-retest application with 15 days between applications, on a batch of 186 males and females with superior education in progress, with an age average of m=19.98, min=18, max=37, standard deviation $\sigma=2.71$.

The sample of the participants to the training was made of 10 females in the experimental group aged between 27 and 41, with the average of 33.7 and standard deviation of 4.67. Equally it was made a control sample selecting persons of the same age as the experimental group, the same level of education and the same professional orientation towards the human domain, the age limits being between 26 and 40 with the average of 33.5 and standard deviation of 4.64.

c) Comparing measures

Validity of the constructed sample

Predictive validity

It shall be specified from the very beginning that the specialty literature accepts only appreciations regarding the validity of the sample on short term (Radu, 1993, p. 363) or maximum on medium-term.

In order to determine the predictive validity, criterion samples were chosen focusing on the five conceptual dimensions proposed for testing – responsible commitment, self-
assessment, trust in life, positive thinking, accepting change – to frame the empowerment construct and the correlation indexes were highlighted between test results and those obtained to the criterion tests on a sample of 104 subjects.

Thus, in order to measure the responsible commitment dimension, the scale proposed by Rotter was chosen to measure the internal or external assignment of control. In order to measure the self-assessment measurement, the self-efficiency scale proposed by Rotter and the self-efficiency questionnaire proposed by Bandura were used. The correspondence with life trust or axiological orientation was made by the S-Form Personal Values questionnaire. As for positive thinking, it was used Marlow Crown scale in order to highlight the positive attitude orientation. Last but not list, it was applied in a modified variant the scale of measuring the adaptation to change in the organizational environment proposed by T.A. Jurdge and Vladimir Pucik.

Validity of content

Validity of content highlights the fact that the items composing the test have to highlight the assembly of tasks, conditions or mental processes regarding the scope condensed by the test (Radu, 1993, p. 367), the empowerment construct in this case.

It is to be noted that the empowerment strategies rely on the modification of the attitude based on the limitative beliefs, attitudes manifested by disadaptive behaviours for certain life situations. The items of the questionnaire were constructed as examples of open or limitative attitudes in three important life scopes of the individual life: emotions, interpersonal relating and appreciation of the effort for work/job.

Also, together with some experts in the educational, clinical and organizational areas, there were set definitions for the positive and negative variant of the five dimensions of the basis beliefs through the constructed sample. They shall be recorded in the notebook of the test (Annex 1)

Conceptual validity

Conceptual or hypothetical-deductive validity indicates the degree certain explanatory concepts or hypotheses enable the understanding or interpretation of the results obtained by the trial (Radu, 1993, p.369).

For EMCOLOI questionnaire, the problem is the degree it focuses on the empowerment dimension or assumed power. The entire validity assuring approach contributes to the achievement of the conceptual validity.
The dimensions of the scales – examples of positive and negative attitude, open towards opportunities or limitative – result from beliefs or ideas more or less rigid or stereotypes, rooted into usual expression persons hear as life lessons in their early age.

For the empowerment construct or the power assuming strategy there was made in the notebook of the test (Annex 1) a definition which takes into consideration the beliefs, a definition matching the definitions proposed by the specialty literature dealing with explaining the empowerment construct and its multiple scopes of enforcement.

**Fidelity of the constructed trial**

Several proceedings were used to settle the fidelity of the proposed trial:

- calculation of the α Cronbach fidelity coefficient for each scale and for the questionnaire, fully;
- using the split-half of the test to see the proportion of fidelity in the two halves of the questionnaire;
- a test-retest application of the constructed proof on a sample of 186 subjects for 15 days between the two applications;
4. Main results and their interpretation

Of the relevant results in the study of the impact of the training on the participants versus the control group, there will be presented in this summary the difference between means, the results of Spearman’s correlation coefficient and cluster analysis.

**Difference between means/environments**

**Table 1** Significant results for Levene test and t for two independent samples

<table>
<thead>
<tr>
<th>Variable</th>
<th>F</th>
<th>Sig.</th>
<th>T</th>
<th>Df</th>
<th>Sig. (2-tailed)</th>
<th>Difference of environments</th>
<th>stdrd. error of difference</th>
<th>Inferior value</th>
<th>Superior value</th>
<th>95% of a</th>
<th>Difference safety interval</th>
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**Legend**

AS - self-efficiency perception
LV - trust in people and opportunities
GP - positive thinking
CS - change adaptability
EMP - empowerment
P1 - personal power
P2 – power in relations
It can be concluded that there were two situations when the differences between environments were significant to the experimental group versus the control group.

There were highlighted significant differences to equal variances for the variables trust in people and opportunities, positive thinking, personal power and power in relations.

These differences were translated in the fact that the experimental group wherein one intervened to highlight the valences of empowerment, obtained significantly higher scores in the dimensions of beliefs and issues of the assumed power towards the control group.

The second category of significant differences between environments was noticed at various variances. It is about the dimensions of empowerment, self-assessment and change adaptability.

Thus, it can be concluded that after learning on assuming the power to act, the subjects in the experimental group obtained significantly higher results in terms of better self-assessment, better adaptation to change and better reaction to unpredicted situations by assuming the power to act.

**Analysys of significant correlations for the groups considered within the study**

Statistical analysis was supplemented by evidence of significant correlations between variables for responses of the subjects in the experimental and control group. Values listed in Table 2 are for the experimental group and in Table 3 for the control group.

**Table 2. Values of Spearman’s ρ correlation coefficient for the experimental group at p<.01 and p<.05 probability threshold**

| ρ  | N1 | N2 | N3 | N4 | N5 | N6 | N7 | N8 | N9 | N10 | N11 | N12 | N13 | N14 | R | S | A | L | V | GP | CS | E | M | P | PP | PR | E |
|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N1 | 1  |    |    |    |    |    |    |    |    |      |      |      |      |      | R | S | A | L | V | GP | CS | E | M | P | PP | PR | E |
| N2 | 1  |    |    |    |    |    |    |    |    |      |      |      |      |      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| N3 | 1  | .978** | .775** |    |    | .899** | .988** | .894** | .696* |      |      |      |      |      | R | S | A | L | V | GP | CS | E | M | P | PP | PR | E |
| N4 | 1  | .727* | .741* |    |    | .789** | .689* |      |      |      |      |      |      |      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| N5 | 1  | .835** |      |    |    | .902** | .978** | .916** | .775** |      |      |      |      |      | R | S | A | L | V | GP | CS | E | M | P | PP | PR | E |
| N6 | 1  |    |    |    |    |      |      |      |      |      |      |      |      |      | R | S | A | L | V | GP | CS | E | M | P | PP | PR | E |
| N7 | 1  | .849** | .747* |    |    | .852** | .879** |      |      |      |      |      |      |      | R | S | A | L | V | GP | CS | E | M | P | PP | PR | E |

.83 3*

.65 6*

.67 4*

.80 9*

.72 2*
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**Nota:** ** significant correlations to p<.01 probability threshold  
* significant correlations to p<.05 probability threshold

**Legend**

- **RS** - self-responsibility
- **AS** - self-efficiency perception
- **LV** - trust in people and opportunities
- **GP** - positive thinking
- **CS** - change adaptability
- **EMP** - empowerment
- **P1** - personal power
- **P2** - power in relations
- **N1** - need of performance
- **N2** - need of belonging (affiliation)
- **N3** - need of aggression
- **N4** - need of defence (self-defence)
- **N5** - need of conscience
- **N6** - need of domination
- **N7** - need of exhibition
- **N8** - need of autonomy
- **N9** - need of taking care of others
- **N10** - need of order
- **N11** - need of help from others
- **N12** - need of self-justification
- **N13** - need of rational domination
- **N14** – aggressive non-conformism
- **N15** – passive dependence
- **N16** – sociability
Correlational analysis per sample at the level of the experimental group and control group highlights a range of conclusions for each group.

Thus, for the experimental group, there were noticed significant correlations between the dimensions of motivation, empowerment with its dimensions and facets of power.

In terms of distribution there were noticed significant correlations between the 1st and 2nd degree of motivational dimensions, the sense of the correlation confirming the significant averages obtained by the experimental group to the motivational variables.

It is necessary to mention the significant connections between empowerment and its dimensions and the other variables present in the study.

The self-responsibility dimension positively and significantly correlates at the level of the experimental group with the self-assessment dimensions on one hand and with personal power on the other hand. That is after learning by training to assess their personal capacities, the subjects acquired also an increased feeling of personal power.

For self-assessment dimension there were registered significant positive correlations. Knowing the way of emphasizing and valorising personal resources by the self-assessment ways learned during the training, the subjects are more tempted to assume the power to act in the most unexpected situations.

The positive thinking/attitude dimension is significantly and positively related at the experimental group to the need of domination within the 1st degree of needs and to the change adaptability dimension. The manifestation of good-aspects, value oriented thinking, was associated with the motivation of being leaders, to take decisions on one hand and manifest better capacity of adaptation to the requirements of change on the other hand.

For the subjects in the experimental group there were identified a range of significant positive correlations between the change adaptability dimension on one hand and the need of conscience, the need of domination, the need of self-justification, the need of rational domination and the aggressive non-conformism on the other hand. Once understood and acknowledged during the training – the importance of the orientation towards change and of the flexibility in adopting the measurements of change, the subjects were oriented towards being conscientious, more loyal and more competitive, willing to lead others and attain their targets and satisfy their desires of aggressiveness.

It is also necessary to highlight at the level of the experimental group, the significant correlation between the empowerment dimension and aggressive non-conformism. Gaining the courage to act and look for resources and fight for solving out situations regardless their
difficulty, the subjects also manifested tendencies towards achieving their desires of aggressiveness.

Significant correlations show the possibility of determination of some changes at the level of the motivational dimensions by the changes of the limitative beliefs proposed for assuming the power to manage their own lives. The training involves breaking the patterns of beliefs by opening the perspective to think from or/or cognition to and/and cognition. Learning the manners of understanding and operating with their own limitative beliefs in the training and acquiring some manners of assuming power by optimal valorisation of its own potential, determined in the experimental group a change manifested in reducing the dependences imposed by the limitative beliefs.

Table 3. Values of Spearman's p correlation coefficient for the control group at p<.01 and p<.05 probability threshold

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**Nota:** ** significant correlations to p<.01 probability threshold
* significant correlations to p<.05 probability threshold

**Legend**

- RS - self-responsibility
- AS - self-efficiency perception
- LV - trust in people and opportunities
- GP - positive thinking
- CS - change adaptability
- EMP - empowerment
- P1 - personal power
- P2 – power in relations
- N1 - need of performance
- N2 - need of belonging (affiliation)
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- N5 - need of conscience
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- N7 - need of exhibition
- N8 - need of autonomy
- N9 - need of taking care of others
- N10 - need of order
- N11 - need of help from others
- NIV – passive dependence
- NV – sociability
- NIII – aggressive non-conformism

Correlations identified in the control group also focused on the dimensions of the motivational dimensions, empowerment and limitative beliefs and power sources. There will be highlighted and explained mainly the significant correlations between empowerment and the dimensions of the limitative beliefs dimensions and other variables.

The self-responsibility variable dimension significantly and positively correlates with the capacity to adapt to change and empowerment. Subjects in the control group showed a tendency to avoid taking up difficult tasks, i.e. difficulty adapting to change and orientation towards victimization and lack of action rather than assuming power.
The self-assessment dimension showed positive correlations with the variables: ability to adapt to change, empowerment and power in relations. Difficulties of establishing an accurate self-evaluation for the subjects in the control group were linked to difficulties in understanding changes and the importance of adaptation thereto, for fear of assuming the power to act and the difficulty of integrating in the groups they enter.

It must be mentioned the significant negative correlation established between the variable trust in the world and opportunities on one hand and the need of defence and the need of awareness on the other hand. The lack of trust in others and in the possibilities offered by this world was associated with high sensitivity, the tendency to defend oneself and conscientiousness and fairness on the other hand.

Significant positive correlations were recorded between the dimension of trust in the world and life and the variables the need of exhibition, the need of autonomy and aggressive nonconformism. Also for the subjects in the control group the distrust in other people and in the opportunities of this world, was associated with this desire not to stand out, conformism and acceptance of compromises.

The positive thinking/attitude showed significant positive correlations with the variables need of exhibition, need of caring for others, aggressive non-conformism and passive dependence. In the control group there is an orientation towards positive thinking but one cannot say that it is significantly positive and it is associated with fear of exposure, coldness and indifference manifested in helping others and following the desires of aggression.

The capacity to adapt to change variable significantly and positively correlates with the variables the need of aggression, need of autonomy with sociability and empowerment. Orientation toward change and flexibility in accepting changes associated with impulsivity, impatience, nonconformism, orientation to being friendlier and the tendency of assuming the power and act even if situations are not very familiar to them.

Significant correlations are recorded for the first variable - empowerment on one hand with the variables - need of domination, need for exhibition, need for autonomy, sociability, on the other hand. Not knowing the manners of acting and reacting by optimal valorisation of personal resources and assuming power of finding solutions, was associated with the orientation not to stand up, to be an executer, not to expose oneself, conformism and difficulties to accommodate in groups.
At the control group there were recorded several correlations at the level of empowerment dimension and its scales. Limitative beliefs determine patterns of thinking tied in variants of or/or, either/either types which associate with emotions and often express in disadaptive behaviour. Many order I or II needs which recorded low values correlated directly and significantly with the dimensions of the limitative believes or with an overall scale. Therefore, an intervention focused on changes at the level of beliefs would associate with changed values at the level of the motivational dimensions as well.

**Cluster Analysis**

For a better picture of the manner of grouping and the force of variables at the level of the two groups, there were generated the images of their grouping by cluster analysis, images shown in Figure 1 for the experimental group and Figure 2 for the control group.
**Figure 1** Dendrogram of variables disposition for the experimental group

Localisation: 1 experimental

**HIERARCHICAL CLUSTER ANALYSIS**

Dendrogram using Average Linkage (Between Groups)

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Legend

RS - self-responsibility
AS - self-efficiency perception
LV - trust in people and opportunities
GP - positive thinking
CS - change adaptability
EMP - empowerment
P1 - personal power
P2 - power in relations
N1 - need of performance
N2 - need of belonging (affiliation)
N3 - need of aggression
N4 - need of defence (self-defence)
N5 - need of conscience
N6 - need of domination
N7 - need of exhibition
N8 - need of autonomy
N9 - need of taking care of others
N10 - need of order
N11 - need of help from others
N1 - need of self-justification
NII - need of rational domination
NIII - aggressive non-conformism
NIV - passive dependence
NV - sociability
Figure 2  Dendrogram of variables disposition for the control group

localisation: 2 control

**HIERARCHICAL CLUSTER ANALYSIS**

Dendrogram using Average Linkage (Between Groups)

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Legend

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Compared, the images of the clusters for the studied experimental and control group have a range of particularities.
The first cluster formed is similar both for the experimental group and for the control group and it is formed of all 1st degree needs and the five dimensions of beliefs for the experimental group. The first difference between the experimental and control group is the lack of 1st N11 degree need manifested to the control group as distance and indifference to others' needs.

At the experimental group, the 1st degree needs and limitative beliefs (self-responsibility, self-assessment, trust in people and opportunities, positive thinking and capacities of adaptation to change) adds to the 3rd degree need of aggressive non-conformism. To this cluster, there are added in new cluster the variables: personal power, power in relations and sociability, possible as a consequence of the experimental group subjects' learning the importance of the capacities of action in a team and accommodation to a group for the manifestation of personal power and power in relationships.

For the control group, the order of inserting the variables in the cluster is slightly different at the second cluster in terms of power, being added the personal power, power in relationships and sociability on one hand and aggressive non-conformism on the other hand.

Another significant difference in the control group compared to the experimental group is the presence as high value in the following cluster made, of the negative form of the need of help from others, that is the indifference and the distance versus others’ problems.

For the experimental group, the following variable in the cluster is the need of rational domination, of showing off in front of others, of being competitive and obtain success by all means which also appears in the control group cluster.

At the following cluster, it differs the structure between the experimental group and the control group, that is the experimental group there are the passive dependence and empowerment on one side and the need of self-justification on the other side, and to the control group, there are grouped the need of self-justification with passive dependence on one side and empowerment on the other side.
5. **Personal contributions**

The research consisted in identifying the definitions of the empowerment construct and the dimensions of the limitative beliefs proposed by Gershon & Straub, 1989: self-responsibility, self-assessment, trust in people and opportunities, positive thinking/attitude and change adaptability, definitions in agreement with the Romanian culture and terminology.

As empowerment is perceived as a continuum from the aspects of victimizations and petrification to assuming power and managing own lives, the definitions implied the settlement of positive and negative polarity for the construct and the dimensions of the limitative beliefs.

Based on definitions, the items were generated for a questionnaire of five scales with nine items focusing on the five dimensions of the limitative beliefs. Following statistical processing, the number of items was reduced to five on each scale. EMCOLI questionnaire was produced, the name coming from Empowerment – limitative beliefs facet, that is a measurement for the cognitive dimension of the construct.

When establishing the fidelity, the trial may be used as a compact dimension Empowerment – limitative beliefs facet, with a moderate degree of fidelity tested by test-retest, split-half and establishment the Cronbach’s α fidelity coefficient.

It was also established the validity of the trial by analyzing the conceptual dimensions of the empowerment construct with the help of a group of experts and by correlation with a number of criterion trials which are already validated.

It was adapted and run the training focused on power assuming strategies proposed by Gershon & Straub, 1989, for four days, two weekends. A semi-structured interview made of nine questions was constructed for the participants in agreement with the content of the concepts and of the exercises run during the training.

There were applied after intervention to the persons finalizing the training some trials related to the motivational structure of the personality, EMCOLI questionnaire, a questionnaire to highlight the sources of power and the interview. In an equivalent way, there were selected ten persons of the same age, level of education and come from the urban environment as the control group and answered to the same trials, except for the interview.

The data obtained from the two groups were interpreted and there were highlighted the defining aspects related to the results obtained by each group.
6. Study limitations and subsequent possibilities of using the results

The study has in view to create a theoretical research basis, to build some diagnosis tools of empowerment construct’s dimensions and to validate a practical intervention manner at the level of Romanian population. The intervention manner is workshop created by D. Gershon and G. Straub that refers to making persons aware of and using the individual control potential on the personal development possibilities by changing the disadaptive aspects at attitude level and by increasing the motivation for the individual’s participation and action.

During the research, a diagnosis questionnaire of the five basic limitative beliefs was built. The limitative beliefs have been used to create an empowerment concept’s facet. However, the instrument was created for offering a first diagnosis before training for becoming better acquainted with the participants and for focusing efficiently on approaching limitative beliefs with low scores.

The loyalty coefficient showed a moderate value for the entire scale, this being for the empowerment construct, but it was not confirmed as significant on any of the five scales. Due to these, the items per each scale must be revised and the loyalty setting out process on scales must be resumed because diagnosing the dimensions of limitative beliefs is particularly important.

The questionnaire does not measure the empowerment construct with all its facets, but only the aspects connected to limitative beliefs. The questionnaire may be improved by introducing some correct statements built by going from the limitative belief of or / or type to a thinking open to possibilities of and / and type.

The analysis of EMCOLI questionnaire did not show the gender differences that would allow drafting a test manual stating the positive scores on gender categories.

At the time of analyzing the validity of questionnaire, the direct correspondence between the dimensions of scale and the criterion test proposed initially has been kept, and two of the criterion tests did not record any significant correlations with the questionnaire scales or the questionnaire of its whole. As well, the change adaptation dimension was correlated significantly only with the creativity value and not with the criterion test named change adaptation scale. This indicates the need to revise the scale items.

The experimental and control groups had a low number of subjects, only females, and the time between intervention and taking over the results in the experimental group was very long. In the future, the approach may be continued on larger groups that would include
both genders, and the measurements of intervention must be made before and at a shorter period after finishing the training.

At the level of experimental and control groups, aspects connected to affectivity on the line of emotional balance and emotions management have not been investigated. In subsequent studies, these aspects may be considered.

From analyzing the interviews, the conclusion that may be reached is that the most important dimension of training was defining and setting the boundaries of personal power sources. For a better diagnosis of students’ needs and for an intervention focused on the weak points, a scale for emphasizing the strong and weak points of students at the level of seven personal power sources may be created next to the questionnaire of measuring the limitative beliefs.

Interviews have been taken on computer, a fact that led most probably to shorter answers and there was no possibility for the respondents to raise some clarifying additional questions. In the future, it will be more useful to organize face-to-face meetings for a greater accuracy and precision of the interview results.

The results of study can be used at interdisciplinary level that refers to the educational psychology area for training professors and pupils of all ages up to students and even for educating the adults.

As well, the information processed especially at the level of experimental and control groups may be used in the community psychology domain.

Diagnosis of aspects connected to the limitative beliefs and openness to thinking outside the box, as well as the positive human interaction manners for undertaking power may be used in the social psychology with possible applications in the area of political psychology.
7. General conclusions

- **Analysis of EMCOLI questionnaire dimensions**

  Out of the inter-item correlational analysis one can *conclude* that there were significant correlations between the items of the five different scales. These correlations associated with the average and the standard deviation lower than 1 were the selection criteria for the 25 items forming EMCOLI questionnaire.

  After the factorial analysis of the questionnaire items it could be mentioned the fact that the procedure of reducing the items by the technique of exploratory factorial analysis showed significant correlations between the items of the questionnaire and five factors covering a percentage of 51.71% of the total. Out of the two factors, two were identified as correspondents of the conceptual dimensions covered in the study. It is about the ability and flexibility of adapting to change - factor 1 and positive thinking/attitude - factor 2. The other three factors contained items from different scales in different weights without being able to identify a separate scale for each factor.

  The predictive validity of EMCOLI trial was conducted by establishing correlations between the chosen criterion variables and the scales of the questionnaire. Each scale and the questionnaire significantly correlated with at least one dimension of the selected criterion variables.

  As there were significant correlations between the scales of the questionnaire, the overall questionnaire and the criterion samples, it can be said that EMCOLI sample has good predictive validity.

  The content and conceptual validity for EMCOLI trial was considered in the discussions with the experts who participated in the selection of the concepts for definitions in the items elaboration phase.

  The fidelity of the sample is moderate, as reflected by the results of the statistics. Across all items of the questionnaire, the value of Alpha Cronbach coefficient is .735 which suggests a moderate fidelity of the items. At the level of the scales, that is at the level of the five dimensions of the limitative beliefs, the fidelity of the items is low, reaching only the threshold of .65 only for the capacity to adapt to change scale, so it can be stated that the items of the scales may not be used separately, only in total at the level of the questionnaire.
The analysis of Guttman Coefficient analysis half-split reveals moderate fidelity (Guttman Coef. = .724) in the questionnaire and in its two parts, but still a significant fidelity. In emphasizing the fidelity of EMCOLI sample by test-retest method at the level of all items in the questionnaire, the value of Alpha Cronbach fidelity coefficient is .748, over the .70 significance value, which suggests a moderate fidelity of the items. At scales level fidelity was not significant. Test-retest results 15 days away on a batch of 168 subjects confirm the previous results on the batch of 104 subjects obtained from the analysis of the fidelity of the scale.

- Analysis of the results recorded in the experimental group and in the control group

Out of the results obtained when processing data, there were shown at the level of limitative beliefs, lower average scores at the control group compared to the experimental group. The level of significance of these differences was confirmed by the analysis of the difference between environments.

After applying the t test to determine the difference between environments it could be concluded that the differences between environments were significant between the experimental group and the control group. These differences concerned the variables self-assessment, trust in the world and possibilities, positive thinking, ability to adapt to change, empowerment - limitative beliefs facet, personal power and power in relations.

In the experimental group there were noticed significant correlations between dimensions of motivation, empowerment with its dimensions and facets of power.

Significant correlations show the possibility of determination of some changes at the level of the motivational dimensions by the changes of the limitative beliefs proposed for assuming the power to manage their own lives. The training involves breaking the patterns of beliefs by opening the perspective to think from or/or cognition to and/and cognition. Learning the manners of understanding and operating with their own limitative beliefs in the training and acquiring some manners of assuming power by optimal valorisation of its own potential, determined in the experimental group a change manifested in reducing the dependences imposed by the limitative beliefs.
In the control group there were notices several correlations at the level of the empowerment dimension and its scales. Limitative beliefs generate patterns of thinking tied in or/or, either/either types, associated with emotions and expressed in often disadaptive behaviour. Many of order I or II needs which recorded low values correlate directly and significantly with the dimensions of the limitative beliefs or with the overall scale. Therefore, an intervention focused on changes at the level of beliefs would associate with changed values at the level of the motivational dimensions as well. Therefore, an intervention focused on changes at the level of beliefs would associate with changed values at the level of the motivational dimensions as well.

For a better picture of the grouping and the force of the variables for the two groups included in the study, there were generated the cluster images of the variables grouping.

Differences in the force of the variables were identified at the variables empowerment, social needs and sources of power. In the experimental group there is noticed greater independence, confidence in own forces and openness towards acting and standing out taking into consideration others’ needs. In the control group, uncertainty dominates and the orientation towards not standing out, not being remarked within the group and not showing off.

From the analysis, synthesis and qualitative interpretation of the interviews text it was noticed that for most key points, the subjects' answers are related mainly to the thematic category of sources and resources of personal power.

Since the purpose of the interview was to highlight the impact of the empowerment training on the participants, the change estimated to be observed in the attitude of the learners by the conceptual dimensions and strengthening exercises performed during the four days of course is as evident as possible in the responses to item 6 - Changes occurred in the lives of the students after completion of training and until applying the interview. Most attitude changes are related to the sources and resources of personal power as well as to the synthesis of personal visions in significant statements. From the respondents’ reports it is noticed that they made their skill, ability to identify, to change limitative beliefs by their ability to form meaningful statements in the present tense, synthesized in personal visions based on activation and development of inexhaustible personal resources of empowerment.
BIBLIOGRAPHY


• Fleury, Julie Ph.D; Keller; Collen; Murdaugh, Carolyn (2000). Social and Contextual Etiology of Coronary Heart Disease in Women, in *Journal of Women`s Health Gender Based Medicine*, vol. 9, nr.9, pg. 979.;


• Liang, Belle, Tracy, Allison; Taylor Catherine; Williams, Linda; Jordan, Judith; Miller, Jean Bakon, (2002), "The Relational Health Indices: A Study of Woman’s Relationships" in *Psychology of Women Quarterly*, (spring 2002), Vol. 26, Issue 1, p. 25, 11 pg.;


• Moody, Kimbaly/Childs; Janis/Sepples; Susan, (jul/aug. 2003), "Intervening with At-Risk Youth: Evaluation of the Youth Empowerment and support Program” in *Pediatric Nursing*, vol. 29; Issue 4, p. 263 – 270;


• Pitariu, H.: Managementul resurselor umane: Masurarea performantelor profesionale. Editura "ALL";

• Pooley, Collin, G., Gerrard, Catherine; Hollis, Sally, Stephan Morton; Astbuny, John - medical , (Sep. 2001) "Oh it/s a Wonderful Practice... You Can Talk to them”: A Qualitative Study of Patients/ and Health Professionals/ Views on Management of Type 2 Diabetis., *Health & Social Care in the Community*, Vol. 9, Issue 5, p. 318 – 326; 9 pg.


