Relations between Negative Meta-messages, Irrational Thinking and Personal Self-efficiency

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Abstract: Communication skills represent an important condition for a successful education. This assertion becomes more real when is applied to teachers. Also, the irrational thinking and the lack of self-efficiency beliefs are ones of the most frequent factors of decreasing performances. This study aims at figuring out the relations between the negative meta-messages, the irrational thinking and the feeling of personal self-efficiency. We conducted an investigative study, using the questionnaire as instrument to measure the variables. The sample comprises 40 teachers and 70 pupils from different ages. The results of the study show that the negative meta-messages are positively related to irrational thinking and negatively to the personal self-efficiency feeling. From this perspective, the variables under investigation can turn into important key factors of personal changes, meaning a better efficiency in communicating with oneself or with the others. Any irrational thinking can be approximated to a rational way of thinking and may become a transversal ability even a universal capacity through which we manifest in order to reach our educational or professional goals. 

Keywords: negative meta-messages, irrational thinking, personal self-efficiency

1. INTRODUCTION

A person being in different social situations - „interpersonal, small groups, organizational, public, in masses, intercultural, family, health, politics” (Iovănț, 2001), needs to communicate in order to transmit his or her points of view, his or her purpose, ideas, emotions or feelings. Underlining this aspect, Nicolescu (according Ezechil, 2002), asserts referring to communication: We know from the Bible that the great project of the Babel Tower, that aimed to reach the sky, failed when people, from a divine punishment, could not communicate any more. Without communication, instead of representing the House of the Creation of Heaven and of Earth, the tower sank into a hole in some years. The real face of humanity lies in the dialogizing person, in that I-YOU relationship celebrated by Martin Buber that sets up not only a collective existence, but also the reality of the individual as such. Without irrigating the „YOU” and „THAT ONE”, the „SELF” remains confused in a devastated loneliness. A person gets to „I” by „YOU”. It is by no more coincidence that Platon Gregory the Great present their philosophy under the healing form of some dialogues (Ezechil, 2002). Communication represents a specific humanity features manifestation form and it is the place where the particular representations of the world meet and the dialogue turns into an „intersubjective game” (Iacob, 1998). That is why the interest in studying communication is reflected in a great variety of definitions that try to perceive the essence of this primarily human phenomenon.
Rus (2002) selects two definitions of the communication, as being relevant. The first definition spots the subtlety of transmitting information in the process of communication. First definition is proposed by Kunczic: Communication involves the interaction with the help of certain symbols and the unintentional transmission of information through the one who communicates, being interpreted as informative by an observer (Rus, 2002). The second definition underlines the persuasive, determining its character of communication: “... communicating is synonymous with telling, explaining, convincing or acting” (Şerb, 1999).

The process of human communication is based on a number of psychomotor processes, specifically human. The language and its conscious component - thinking- plays an extremely important part (Popescu-Neveanu, 1978). The language is one of the main ways through which all people model their experiences. In a classification made at The NLP level, the verbal language consists of a superficial structure, that refers to verbal announcement, used to communicate experiences, and a profound structure, that considers the linguistic representation as complete and implicit, yet unclarified in enunciations of the same experiences (Bandler, Grinder, 1975). When, in 1976, Richard Bandler and John Grinder laid the foundations of the NLP system, there had already been created a way of thinking in communication. Being a method to improve efficiency in communication, NLP has the advantage of „setting to work” four fields based on representations: the field of communication and that of psychology. The truth is that every one of us has difficulties in communicating. They occur because of some barriers which lead to certain blockings.

The theories suggested by the neurolinguistics programming begin from the premise that the speaking process consists of the extraction of the sensorial richness and of its transmitting through words. During the process of speaking, experience undergoes three transformations: the deletion (omitting certain aspects in the process of passing from the profound structure to the surface structure), the generalization (taking an example which we consider representative for a whole class of experiences) and the distortion (certain aspects are given more importance than others).

The meta-message could be defined, in a direct manner, as being a message about a message (O'Connor, Seymour, 2013). The meta-message refers to the way a person thinks of what the message coming from another person transmits to him/her and to what he/she wants to transmit to the other beyond the language he/she uses. From the operational perspective, the meta-message is a permanent process, used by every person and takes place both at the conscious and unconscious level. A meta-message gets us in a state of consciousness beyond the primary level of communication (Carter, 1998). The negative meta-message is that meta-message which lays a barrier in the way of communication (Dilts, 1995). There are three types of negative meta-messages: meta-deletions, meta-generalizations and meta-distortions.

In this Manual of NLP, Joseph O'Connor (2013) considers that the meta-deletions appear when certain parts are omitted because the person who communicates does not have the appropriate words to express them, neglects some parts because he/she thinks they are less important or other parts are omitted because they simply are not taken into account when the message is being expressed.

The generalization appears even if the transmitter decides that an example represents a whole group, when it works out categories, classes, groups of information, starting from separate example and then uses these newly-created categories to work out new information.
Every time when we start from an example and we reach a general conclusion, we appeal to generalization.

The meta-distortion reveals peoples tendency to modify experience. Deformation can appear in many hypostases, from embellishing a certain experience, to its hyperbolising, or, on the contrary, to its minimalizing, deluding the concentration or modifying the succession of events.

Meta-messages are ways to filter reality, to relate to the subjective criteria of a person. Meta-messages express every person's universe of experiences and they are the result of subjective experience of a person who is structured at the family or educational level.

Irrational thinking is that type of thinking which deforms up to distorting reality; it brings to a person a state of emotional stress, fact which makes that person annul his/her ability to reach their goals in life. We may say that dysfunction is the main valence of irrational thinking. Also named rigid or illogical thinking, this type of thinking takes place when the mind thinks illogically, without realizing that it is doing what is doing, when the unconscious is programmed only to judge, to get annoyed, to see „evil's hand” everywhere, when one remains in a diminished discernment, or it comes from the generalization of a negative aspect etc. Irrational beliefs that are at the basis of the rigid thinking are the intolerance to frustration, negative global evaluation, catastrophic thinking, and the absolutist type of thinking. Negative beliefs induce some kind of negative consequences that cause psychic discomfort. They make people resort to behaviour that is contrary to their interest, preventing them from reaching the aimed ideal.

The Canadian Albert Bandura, professor of psychology at Stanford University, in his paper The Social Cognitive Theory of Self-Regulation, considers that self-efficiency refers to people's belief that they control the events which affect their life (Bandura, 1991). According to this psychologist, there are four areas from which resides the perception that a person has over his/her own competence: 1. The performances they had in the past; 2. Observing how another person carries out an activity; 3. Physiological and emotional reactions; 4. The intervention and support received from the others (Bandura,1991). Personal self-efficiency should be considered according to the role it plays in maintaining motivation, how strong the feeling of self-efficiency is, or the ways of developing self-efficiency.

The author of the third theory differentiates a set of characteristics specific to persons who have a strong feeling of self-efficiency: perseverance, gestures to turn a failure into a challenge, control over situations, no matter what kind they are, implication in multiple activities, power to establish complex objectives, quick acceptance of challenges, consistency, determination in carrying out the tasks, moral force in considering the fulfilment as a result of not enough effort, desire to complete the deficit of knowledge, ambition to form certain abilities that person doesn't have (Bandura,1991). At the opposite pole there are the persons who have a deficient feeling of self-efficiency and can be recognized according to: the tendency to abandon tasks, their giving up when confronted with difficulties, a low level of aspirations, tendency to not get involved making fuss about difficulties, permanent tendency to explain the negative results (Bandura, 1991).

The developing of self-efficiency depends on the optimization of reactions to stressing situations and on the manner we transpose ourselves when faced with negative emotions.
The study of the relations between negative meta-messages, irrational thinking and personal self-efficiency allows us to follow the correlation of the three variables: negative meta-messages, irrational thinking and personal self-efficiency, in order to know them and to educationally influence them.

2. METHODOLOGY

2.1 Research objectives

The aim of the present research is to investigate the relationship between the negative meta-messages, the irrational thinking and the feeling of personal self-efficiency.

2.2 The research hypotheses

The usage of negative meta-messages correlates with the style of thinking and the feeling of self-efficiency.

2.3 Specific hypothesis

1. The use of negative meta-messages is related to the style of irrational thinking;
2. The use of negative meta-messages is related to the feeling of personal self-efficiency;
3. The style of irrational thinking is related to the feeling of personal self-efficiency;
4. The use of negative meta-messages is related to the age of the subjects;
5. The use of negative meta-messages depends on the gender of the subjects;
6. The use of negative meta-messages is related to the level of education they practise.

2.4 The methodology of the research

Starting from the criterion of reaction (of the degree of the scientist's intervention on the object of research), the study had as a basis the quasi-experiment, using the psychosocial investigation. The premises of choosing this methodology were: 1 the experimental design specific to reproducing the experimental situations from the social sciences; 2 causes of ethical and situational nature, which did not allow a strict control over the variables; 3 the condition of double blind (the subjects knew the scientist, but the latter did not provoke their reaction). Moreover, the study laid stress on getting certain opinions about some events or psychological experiences of the group members.

2.5 The investigated group

The subjects under investigation are pupils in Vth-VIIIth forms (N = 70) and teachers who teach or not these pupils (N = 40). The quasi-experiment has independent and dependent variables, but does not use the randomizing distribution of the participants on levels of the independent variable.
The subjects who took part in this research were chose based on volunteering. The group was formed of 110 subjects, 70 pupils in middle school forms and 40 teachers who teach them or not. The ages of the subjects were between 11 and 65. As far the gender of the subjects is concerned, the group was formed by 70 women and 40 men.

The structure of the sample is the following: 7 pupils in the 5th form (5 girls and 2 boys), 15 pupils in the 6th form (8 girls and 7 boys), 18 pupils in the 7th form (9 girls and 9 boys), 30 pupils in the 8th form (16 girls and 14 boys), 12 adults with ages between 20 and 35, 17 adults with ages between 36 and 45 and 11 adults with ages between 46 and 65.

The structure of the group under investigation is synthetically shown in the adjoining table.

### Table 1: Sample's distribution on independent variables (N=110)

<table>
<thead>
<tr>
<th>Students N=70</th>
<th>Gender</th>
<th>M</th>
<th>32</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>11 years old</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12 years old</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13 years old</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14 years old</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>Teachers N=40</td>
<td>Gender</td>
<td>M</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>20-35 years old</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td></td>
<td>36-45 years old</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td></td>
<td>46-65 years old</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Teaching level</td>
<td>Preschool</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Firstschool</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Middleschool</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Highschool</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

As far as the methods of investigation are concerned three identifying and evaluating instruments were applied in order to fulfil the proposed objectives:

1. For the negative meta-messages variable: two questionnaires were made in order to identify the frequency of the usage of negative meta-messages, one for teachers and one for pupils;

2. For the irrational thinking variable, the 28 item variant of the dial of irrationality in children and adults (Bernard & Laws, 1988) and the dial of teachers irrational beliefs (Bernard Yoyce, 1984);

3. For the personal self-efficiency variable the self-efficiency dial was applied (Schwarzer & Jerusalem, 1995).

### 4. THE RESULTS OF THE RESEARCH

The statistical analysis of the raw data was made by means of the computerized programme SPSS and aimed at the identification of some significant relationships between
the variables of the research, by calculating the coefficients of Pearson correlation, and the identification of some differences between the groups determined by independent variables with the help of the variant analysis One-Way-Anova and the „t-test”.

4.1. The First Hypothesis

Table 2: Correlations between meta-messages and irrational thinking (N=110)

<table>
<thead>
<tr>
<th></th>
<th>Intolerance to frustration</th>
<th>Negative global evaluation</th>
<th>Catastrophic thinking</th>
<th>Absolutist demands</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deletions</td>
<td>.110</td>
<td>.227*</td>
<td>-.003</td>
<td>.140</td>
</tr>
<tr>
<td></td>
<td>.251</td>
<td>.017</td>
<td>.978</td>
<td>.144</td>
</tr>
<tr>
<td>Generalisations</td>
<td>.125</td>
<td>.551*</td>
<td>.045</td>
<td>.238</td>
</tr>
<tr>
<td></td>
<td>.192</td>
<td>.000</td>
<td>.644</td>
<td>.012</td>
</tr>
<tr>
<td>Distortions</td>
<td>.188*</td>
<td>.527**</td>
<td>.175</td>
<td>.281**</td>
</tr>
<tr>
<td></td>
<td>.049</td>
<td>.000</td>
<td>.067</td>
<td>.003</td>
</tr>
</tbody>
</table>

The correlational analysis enabled the outlining of a global image of the relations established between the variables. The statistic table of the relations established between the negative meta-message variable and the irrational thinking style is presented as it follows:

From the statistic table of the relations established between the two variables one can notice the following aspects:

- The usage of meta-deletions relates positively to the negative global evaluation (r= 227, p<0.05), which suggests the fact that the persons who use meta-deletions have a negative global thinking;
- There exists a significant relationship between meta-distortions and the intolerance to frustration (r= 188, p<0.05), meaning that the persons who use meta-distortions present intolerance to frustration;
- Meta-distortions relate positively to negative global evaluation (r= 527, p<0.01), which suggests the fact that persons who use meta-distortions tend to have a negative global assessment;
- The relation between meta-distortions and the absolutist demands is a positive one (r= 281, p<0.05). This aspect proves the fact that the persons who use meta-distortions tend to have an absolutist thinking;
- The positive relationship between meta-generalizations and absolutist demands is also significant (r= 238, p<0.05), meaning that the persons who use this type of negative meta-message present a thinking which tends towards absolutist demands.
- The statistics table of relations between the two variables of the research shows the fact that there are significant relations between the sub-variables of the negative meta-messages variable, in the sense that these ones relate positively. In this way, the meta-deletions relate positively to meta-generalizations (r= 571, p<0.01) and to meta-distortions (r= 437, p<0.01) and the meta-generalizations relate positively to meta-distortions (r= 760,
This aspect proves that the persons who use negative meta-messages use both meta-distortions and meta-generalizations and meta-deletions.

4.2. The Second Hypothesis

The descriptive table of the relations established between negative meta-messages and the feeling of personal self-efficiency shows that the usage of meta-generalizations relates negatively to the feeling of personal self-efficiency (r= 198, p<0.05), meaning that there is an inverse relation between the two variables. The more the persons use meta-generalizations more frequently, the more they will have the tendency to present a lower feeling of personal self-efficiency.

Table 3: Correlation between the negative meta-messages and the personal self-efficiency

(\(N=110\))

<table>
<thead>
<tr>
<th></th>
<th>Meta-deletions</th>
<th>Meta-generalizations</th>
<th>Meta-distortions</th>
</tr>
</thead>
<tbody>
<tr>
<td>The dial of self-</td>
<td>-.019</td>
<td>-.198</td>
<td>-.178</td>
</tr>
<tr>
<td>efficiency</td>
<td>.842</td>
<td>.038</td>
<td>.063</td>
</tr>
</tbody>
</table>

The statistic table of the two variables correlation also illustrates negative relationships between meta-deletions, meta-distortions and the feeling of personal self-efficiency, but they are insignificant, as the threshold of significance is higher than 0.05.

4.3. The Third Hypothesis

The relations established between the variable of the style of irrational thinking and the variable of the personal self-efficiency can be seen in the descriptive table presented below:

Table 4: Correlations between the personal self-efficiency and style of irrational thinking

<table>
<thead>
<tr>
<th>Intolerance to frustration</th>
<th>Negative global evaluation</th>
<th>Catastrophic thinking</th>
<th>Absolutist demands</th>
</tr>
</thead>
<tbody>
<tr>
<td>The dial of self-efficiency</td>
<td>-.219</td>
<td>-.248</td>
<td>.389</td>
</tr>
<tr>
<td></td>
<td>.022</td>
<td>.009</td>
<td>.000</td>
</tr>
</tbody>
</table>

In the statistic table of the correlations established between the two variables one can notice that the feeling of personal self-efficiency correlates negatively to the intolerance to frustration and to the negative global assessment, meaning that the persons who present a high feeling of personal self-efficiency tend to possess less of their patterns of the irrational thinking, but these relations are not significant as the threshold of significance is higher than 0.05.

Among the relations illustrated in the statistic table of the correlations between the two variables, the most significant is the positive relationship established between the feeling of personal self-efficiency and the catastrophic thinking (r= 389, p<0.01). This aspect proves
that the persons who have a high feeling of personal self-efficiency tend to manifest high catastrophic thinking.

4.4. The Fourth Hypothesis

In order to test the fourth hypothesis, a One-Way between Subjects ANOVA was conducted to compare the effect of age on „meta messages” (“meta deletions”, „meta generalisations” and „meta distortions”) for ages between 20-35, 36-45, and 46-65 conditions. There was not a significant effect of the age variable on the „meta deletions” variable at the p>.05 level for the three conditions [F (6, 103) = 1.693, p = .130]. There was not a significant effect of age variable on the „meta generalisations” variable at the p>.05 level for the three conditions [F (6, 103) = 1.932, p = .082]. There was not a significant effect of age variable on the „meta generalisations” variable at the p>.05 level for the three conditions [F (6, 103) = 1.749, p = .117].

The chart regarding the frequency of the meta-deletions depending on age one can see that the meta-deletions are used less by the persons aged between 13 and 14 and much more frequently by persons aged between 20 and 35, but these differences did not prove to be statistically significant.

Figure 1: Frequency of meta-deletions depending of the age

As far as the meta-generalizations are concerned, these are frequently used by persons aged 12 and too little by persons aged between 46 and 65 but these differences did not prove to be statistically significant.

Figure 2: Frequency of meta-generalizations depending of the age
The interpretation of the graph regarding the frequency of meta-distortions depending on the age reveals that meta-distortions are used the most by persons aged 12, while persons aged 13 use this pattern of negative meta-message the least, but these differences did not prove to be statistically significant.

Figure 3: Frequency of meta-distortions depending of the age

4.5. The Fifth Hypothesis

An independent-samples t-test was conducted to compare meta-messages in the two gender conditions. There was a significant difference in the „meta deletions” scores for males t(109)=44.170, p = 0.00. As one can notice in the adjoining graph regarding the usage of meta-deletions, the male subjects (M=60.82) use them less than the female subjects (M=65).

Figure 4: Frequency of meta-deletions depending on gender

There was a significant difference in the „meta generalizations” scores for males t (109)=39.256, p = 0.00. As it is shown in the adjoining graph, the female subjects tend to be characterized by higher scores of generalizations (M=32.46%) than the male subjects (M=31.59).
Figure 5: Frequency of meta-generalizations depending on gender

![Graph showing frequency of meta-generalizations by gender]

The t-test revealed that there was a significant difference in the „meta distortions” scores for males t (109)=32.843, p = 0.00.

The graphs of the negative meta-message usage frequency depending on the gender of the subjects reveal that the male subjects use less the meta-distortions (M=23.08%) in comparison with the female subjects (M=25.79%).

Figure 6: Frequency of meta-distortions depending on gender

![Graph showing frequency of meta-distortions by gender]

4.6. The Seventh Hypothesis

According to the last specific hypothesis that was formulated, the usage of negative meta-messages is related to the level of education in which the subject teaches. In the statistic table of the two variables correlation one can see that there is an inverse relation between them (they relate negatively) but one can notice a statistically significant relation only in the case of meta-deletions (r= -235, p<0.05).

<table>
<thead>
<tr>
<th>Class/level</th>
<th>Meta-deletions</th>
<th>Meta-generalizations</th>
<th>Meta-distortions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class/level</td>
<td>-.235</td>
<td>.044</td>
<td>-.125</td>
</tr>
<tr>
<td>level</td>
<td>.013</td>
<td>.649</td>
<td>.193</td>
</tr>
</tbody>
</table>
4.7. Descriptive data

The graphs of the negative meta-messages usage depending on the level the subjects teaches reveal that the adults who teach at the pre-school level use meta-deletions the most (71.5%), while the pupils in the sixth form use the meta-distortions (28%) and the meta-generalizations the most (27.78%).

Figure 7: Frequency of meta-deletions depending on teaching level

![Figure 7](image1)

Figure 8: Meta-distortions depending on the teaching level

![Figure 8](image2)

Figure 9: Frequency of meta-generalizations depending on the teaching level

![Figure 9](image3)

The negative meta-messages are the least used by the subjects in the seventh form: meta-deletions 52.56%, meta-generalizations 27.78% and meta-distortions 19.67%.

5. CONCLUSIONS

As results of the research that has been conducted we have reached the following conclusions:
- The usage of negative meta-messages positively relates to the style of irrational thinking, the higher the frequency of negative meta-messages, the stronger the irrational thinking;

The feeling of personal self-efficiency negatively relates to the usage of negative meta-messages. The persons who have a high feeling of personal self-efficiency will have a lower frequency of the usage of negative meta-messages. Also, our results fall in the same area of conclusions with others researches pointing out the relation between teacher self-efficacy and his didactic experience (Ignat, Clipa, 2009).

- The feeling of personal self-efficiency negatively relates to intolerance, frustration and negative global assessment, meaning that a higher feeling of personal self-efficiency will significantly reduce the negative global evaluation and the intolerance to frustration;

- The analysis that was conducted did not generate significant data in order to confirm the hypothesis according to which the usage of negative meta-messages relates to the age of the subjects. We can notice, however, that the subjects aged 12 use the meta-generalizations and the meta-distortions the most, while the subjects aged between 20 and 35 use the meta-deletions most frequently. Subjects aged between 46 and 65 use the negative meta-messages the least;

- The male subjects use negative meta-messages almost to the same extent as the female subjects, so that the hypothesis according to which the usage of negative meta-messages relates to the gender of the subjects cannot be confirmed;

- The usage of negative meta-messages relates negatively to the level at which the subjects practice, but the analysis conducted did not generate significant data to confirm this hypothesis.

The comprehensive view of the results of the study leads to the conclusion that the usages of the negative meta-messages, of the irrational thinking and of the beliefs about personal efficiency are intercorrelated elements of the self-thinking and of the communication with oneself and with the others. When this communication takes place in a school context, its implications can be found both in the field of school performances, in the case of pupils, and in the field of didactic performances, in the case of teachers. A thorough analysis and self-analysis of the communication can represent an important premise for the academic and professional success.

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