SELF-ESTEEM AND NEGATIVE EMOTIONALITY IN ADOLESCENCE CONTEXT. A PILOT STUDY

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***Abstract:** The goal of this study was to identify the relationships between self-esteem and the two major components of negative emotionality, depression and anxiety. The first supposition was that the three questionnaires destined to measure self-esteem are facets of the same dimension, representing its physical, psychical and social components. The second hypothesis anticipates a tight negative relationship of self-esteem with negative emotionality, but stronger with depression compared to anxiety. A third hypothesis stipulates for self-esteem and negative emotionality the existence of some differences caused by gender and school cycle. The results confirm that the three questionnaires represent facets of the same dimension – self-esteem and that it is associated more closely to depression than to anxiety.*

***Key words:** self-esteem, depression, anxiety, gender, school cycle.*

1. Introduction

If the beginning of psychology as a science has conscience as an object of study through James, Wundt or Janet, Freud subsequently moves the focus on the unconscious. In his papers after 1920, Freud gives an increased importance to Ego and its defensive mechanisms, which leads to outlining an ego psychology, to which decisively contributed Anna Freud, Hartmann, Kris and Lowenstein. Thus, there is paradoxically re-established in the human being the equivalent of conscience which becomes again the psychology object of study (Chemama, 1995). But, as the word Ego is subordinated to the psychodynamic approach, the Anglo-Saxon school has developed a strong psychology of personality whose central integratory element is Self, not the Ego (Clinciu, 2010). So, we can consider the Self psychology is the present heiress of conscience psychology which it reinterprets by the refined means of contemporary science.

Back in 1937, Allport argues about hierarchical organization of personality; this hierarchy results from functioning its specific development mechanisms which are differentiation and integration.

The present approaches in this field have been focused either on the unity of central integratory element of personality which is the Self (Rosenberg, 1979; Baumeister, 2011), or on the Self as an expression of a dynamic system (Marks-Tarlow, 1999), on the

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complexity of individual Self (Linville, 1987; Solomon & Haaga, 1999) or of interpersonal Self (Cohen, Pane, & Smith, 1997), on analysing the causal link between the structure, content and functions of Self and Life satisfaction (Reich, Kessel, & Bernieri). Correlating the Self functions with negative emotionality, that is circumscribed to the concept of Neuroticism, establishes strong connections especially between Self and depression. Thus, Gilbert, Baldwin, Irons, Baccus, & Palmer (2006) develop an imagery study exploring the relationship of self-criticism and self-warmth with depression. Analysing depression in school context, Bernaras, Jaureguizar, Soroa, Ibabe, & Cuevas (2011) show that school maladjustment predicts depression and that self-esteem is also a predictive factor of depression, but only for girls. Comparatively, relationships between Self and the other facets of Neuroticism (anxiety, anger-hostility, impulsivity or stress-resilience) are less investigated. Because the present developments in Self psychology are very dynamic and evolve very rapidly, I have tried to create a framework that should integrate the richness of defining concepts and words at least partially (Clinciu, 2010). This reference system that selects, chooses and organizes a great mass of information intends to preserve the multilevel hierarchical structure of Self as it is suggested by Allport, and its major adaptive functions as well. The model identifies a corporal dimension, a psychological dimension (it consists of two subsystems of valuing: affective and cognitive), and a social dimension of Self.

The goal of this study was to identify the relationships between self-esteem and the two major components of negative emotionality, depression and anxiety. The first supposition of the research was that the three questionnaires destined to measure self-esteem explore facets of the same dimension, representing its physical, psychical and social component. The second hypothesis anticipates a tight negative relationship of self-esteem with negative emotionality, but stronger with depression compared to anxiety. A third hypothesis stipulates for self-esteem and negative emotionality the existence of some differences caused by gender and school cycle.

2. Participants

At this pilot study there participated 100 pupils from a secondary school and a high school from Braşov, mean age of 15.72 years (Sigma Deviation of 2.13), out of which 47 in gymnasium cycle and 53 in high school cycle, 41 of masculine gender and 59 of feminine gender. Participation was willingly approved and carried out during a class, with the informal acceptance of parents and headmaster.

3. Instruments

To determine the sub-dimensions of self-esteem there were used three instruments.

Self-Perception Questionnaire (SPQ, Clinciu, 2010) consists of 30 items which give an overall quantitative expression of self-esteem, distinctively providing a negative component and a positive one of it. SPQ consists of items that are composed of pairs of polar statements, such as: *"I need a very long time to make a decision"* versus *"I make decisions easily, without delaying or procrastinating too much"*. Each item scoring is created with -3, -2, -1, for the negative component of the answer, and with +1, +2, +3, for the positive one, 0 variant being reserved for indecision. The test score is the algebraic sum of negative and positive components of self-esteem, which can be analyzed

separately. SPQ psychometrical qualities are very good: internal consistency has a very high value (alpha Cronbach = 0.92); alpha for the first half is of 0.83 and for the second half is of 0.89; the correlation of the two halves through Spearman-Brown formulae is very high as well (0.85).

Corporal Self-Perception (CSP, Clinciu 2010) is destined to provide a quantifiable indicator for the level of acceptance or non-acceptance of physical elements that become corporal part of self-esteem. The questionnaire consists of a quantitatively scorable section, after the model I previously described for SPQ (scores from -3 to +3, passing through 0), for seven distinctive corporal components: height, weight, gender belonging, head, score, torso, limbs and particular aspects. A second section of questionnaire is destined to qualitative analysis. The internal consistency of the entire questionnaire for the 48 scorable items is of alpha 0.96, for the first section being of 0.95, and for the second one of 0.92. The *Split-half* method of Spearman-Brown shows a very high value (0.91).

The ***Social Self-Esteem Inventory*** (SSEI, Lawson, Marshall &McGrath, 1979) consists of 30 items that are scored from 1 (completely different from me) 6 (exactly like me), destined to determine the social component of self-esteem. For Bouvard (2002), the capacity of self-affirmation in social circumstances seems to be directly associated with anxiety and depression, which might limit the explicative power of the concept. In the context of my research SSEI is used to determine its relationships with physical and psychological components of self-esteem. On the other side we are directly interested if its association is stronger with depression than with anxiety, as I anticipated. Its use is recommended also by the high psychometric qualities which were reported: internal consistency of 0.93 and test-retest fidelity of 0.88.

The ***Multidimensional Anxiety Scale for Children*** (MASC, March, 1997) is an excellent self-report scale for assessing anxiety in children and adolescents. MASC is a comprehensive evaluation of anxiety dimensions in preadolescence and adolescence for children aged from 8 to 19 years. The instrument consists of 39 items covering four major areas: physical symptoms, social anxiety, harm avoidance and separation anxiety. Three of these factors can be split into two sub-factors each. The MASC factor structure seems to be invariant across gender and age, the questionnaire showing very good internal reliability (bigger than 0.85, for boys and girls, under or over 11 years old). MASC reveals the fact that females show greater anxiety on all factors and sub-factors than males. The MASC can be useful in the early identification of anxiety-prone youth, as well as in monitoring treatment effects.

Children's Depression Inventory (CDI, Kovacs, 1979) is a psychological assessment that rates the severity of symptoms related to depression in children and adolescents from 7 to 17 years old (7 to 19 in Romanian adaptation). CDI was developed having as model the 21-item *Beck Depression Inventory* for adults (Beck, 1967). The CDI is a self-rated and symptom-oriented scale consisting of 27 items grouped into five major factors: Negative Mood, Interpersonal Problems, Ineffectiveness, Anhedonia and Negative Self-Esteem. Children and adolescents rate themselves based on how they feel and think, each statement being scored with a rating from 0 to 2. The CDI is a widely used assessment for the severity of depressive symptoms in children and youth, with high psychometric properties. Across one group of nine studies, alpha Cronbach measures were 0.71-0.89, reflecting good internal consistency. Although construct validity and discriminant validity has also been established, the studies are inconsistent, because some of them have reflected good discriminant validity, while others have not. Related to gender differences

results are inconsistent: while some studies have reported significant differences between CDI scores of girls and boys (more depressive symptoms in girls), other studies have found no such significant differences.

4. Results

In order to test the first hypothesis of the study I carried out an exploratory factorial analysis through the principal components method. Though the number of participants is a relatively small one, the factorial solution can be considered stable due to the high level of correlations in the matrix. Moreover, all the conditions of his analysis are fulfilled: the determinant is positive (.437), Bartlett's test of sphericity produces a chi square which is statistically extremely highly significant (80.35, $p < .001$) and KMO indicator of sample adequacy has an acceptable value (.68). The results of this analysis are shown in Table 1.

Table 1

Results of the Principal Components Analysis on the three Self-Esteem tests

	Communalities	Loading
CPS Corporal Self-Perception	.56	.75
PSP Psychical Self-Perception	.80	.89
SSEI Social Self-Esteem	.65	.81
Total variance explained		67.07%

The resulted construct – self-esteem – explains 67.07% from the entire variance, being centered on the psychic component of it. The three questionnaires can be considered components of a unitary integrator factor. That is why their z standardized scores were combined to provide the overall image of this factor. The correlations between Self-Esteem and components of negative emotionality are presented in Tables 2 and 3.

Correlation between Self-Esteem, CDI sub-factors and CDI total score   Table 2

	Negative Mood	Interpersonal Problems	Ineffectiveness	Anhedonia	Negative Self-Esteem	CDI total depression
Self-Esteem	-.43**	-.33**	-.63**	-.56**	-.47**	-.68**

** Correlation is significant at the 0.01 level.

Correlation between Self-Esteem, MASC sub-factors and MASC total score   Table 3

	Physical Symptoms	Harm Avoidance	Social Anxiety	Separation/ Panic	MASC total anxiety
Self-Esteem	-.43**	-.33**	-.63**	-.56**	-.47**

** Correlation is significant at the 0.01 level.

The relationship between the three questionnaires of self-esteem and CDI and MASC sub-factors was searched by two complementary methods. The first one was a hierarchical clusters analysis by Ward method which was done through variables standardization in order to eliminate the units of measurement disparity of the involved variables.

The association relationship between the scores of Self-Esteem factor and the one of CDI depression is of -.68, namely an inverse one which is extremely statistically significant, much higher compared to the association between this factor and the anxiety provided by MASC (-.47) (see tables 2 and 3). In terms of covariance, this is over two times higher for correlation between Self-Esteem and depression compared to anxiety (0.46 for CDI, respectively 0.22 for MASC). On the other hand, the first two contributors to self-esteem from depression are Ineffectiveness (-.63) and Anhedonia (-.56) sub-factors, while from anxiety there are Social Anxiety (-.63) and Separation/Panic (-.56). These correlations are identical for the first two factors in each category. The overall conclusion which is drawn from these data is that the reciprocal relationship between depression and self-esteem clearly is stronger for depression than for anxiety.

Depression seems to involve deeper and more stable elements of self-esteem, while anxiety the conjectural ones. But this conclusion must be verified with an instrument which should distinguish between anxiety as a state and as a characteristic, such as STAXI Questionnaire of Spielberger.

The result of this analysis, which is similar to factorial analysis, yet allowing a better visualization of relationships among variables, is provided by the dendrogram in Table 4.

Table 4

Dendrogram using average linkage (between groups) for Self-Esteem,
CDI and MASC sub-factors
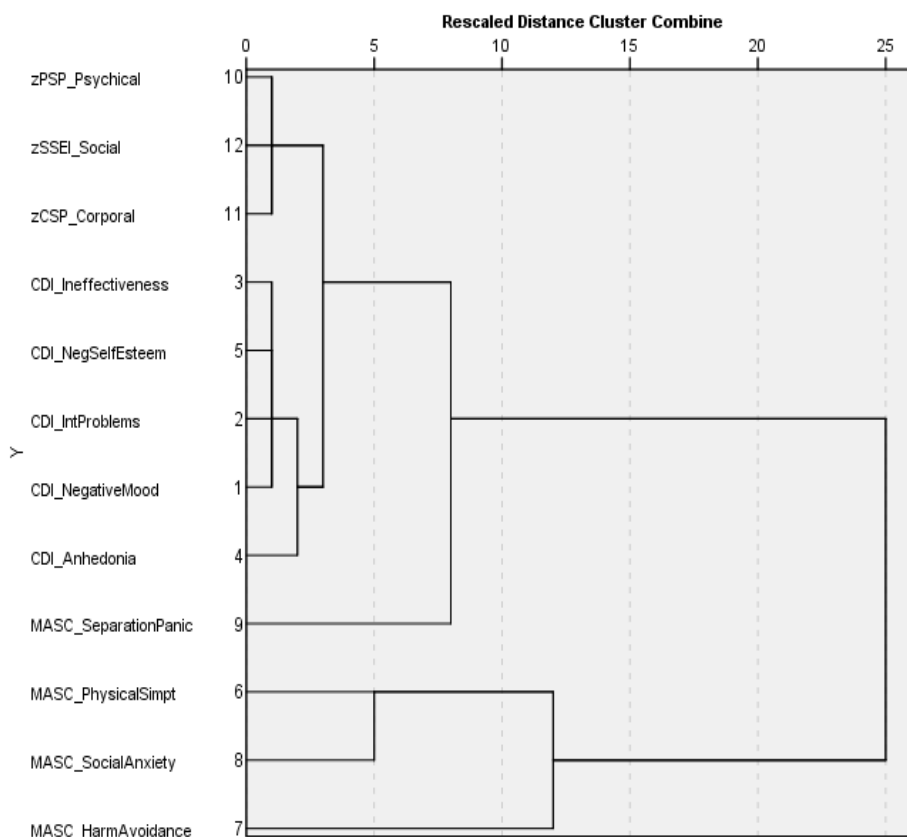
This dendrogram confirms the parallel analysis through principal components that was conducted for the same variables. This analysis provides a solution with two factors of different magnitudes. The first factor covers 42.88% from variance, blending the components of self-esteem and of depression in a unique dimension. The second factor covers only 15.01% from variance, being exclusively centered on the sub-dimensions of the anxiety that is operationalized by MASC. This is an additional argument which sustains the hypothesis of a deeper relationship between self-esteem and depression, compared to the relationship between self-esteem and anxiety.

The hypothesis of gender and age differences (school cycle) concerning the factors and sub-factors of self-esteem, depression and anxiety was tested with *t* test for independent samples. These differences are insignificant for school cycle variable, while gender belonging brings significant differences only for the sub-factors and total score of MASC anxiety. Only these differences were retained in Table 5, being in accord with the data that were reported by the test author for the original version (March, 1979) and for the Romanian adaptation of MASC.

Independent-sample t test for MASC total score and its scales on gender   Table 5

Variable	Category	N	Mean	SD	Difference	*T* test	*P* sig.
MASC total score	male	41	37.22	13.76	15.54	4.72	p < .001
	female	59	52.76	17.67			
Physical symptoms	male	41	9.00	5.97	5.69	4.17	p < .001
	female	59	14.69	7.18			
Harm Avoidance	male	41	14.90	4.59	3.35	3.52	p < .01
	female	59	18.25	4.74			
Social Anxiety	male	41	8.46	5.11	3.10	2.63	p < .01
	female	59	11.56	6.23			
Separation/Panic	male	41	4.85	3.73	3.34	3.84	p < .001
	female	59	8.19	4.61			

5. Conclusions and Discussion

The social-cognitive theories of Self in the past two decades (Rafaeli-Mor, Gotlib, & Revelle, 1999) describe the concept of Self rather as a multi-facets structure than as a unitary one, containing differentiable components out of which there results its complexity (Linville, 1987). The present research finds a unitarily articulate structure of the corporal, psychological and social facets of the component dimensions of Self. In this explanatory triad the highest variance of mutual factor that was identified through the exploratory factorial analysis is that of psychological component of self-esteem which seems to be the most susceptible to more of the defining differentiation for the complexity of Self.

Linville (1987) suggests that developing numerous highly differentiated self-aspects is a protection against the depressive impact of negative life-events. My research has identified a relationship that is twice closer between self-esteem and depression compared to the relationship between the former and anxiety. The explanation of it can result from the fact that both anxiety and depression imply the action of evaluative function but it has different connotations for each. In anxiety the evaluative emphasis is on a conjectural and variable element, which is the situation, while in depression the emphasis is on the individual who is subject to a permanently negative self-appraisal. Confrontation in

depression is not made with situation but with personal and social values, with the ideal, with the individual's expectations and aspirations in the long run. The presence of self- and hetero-evaluative function is the connecting mutual element between self-esteem and depression, mentioning that in depression this function is preponderantly negative because of cognitive biases and exaggerated self-criticism. The close connection between depression and self-esteem is also supported by Kovacs (1979) who included Negative Self-Esteem in the structure of his questionnaire on depression.

There is to discuss if the cognitive theory, according to which the negative cognitive processing operations are the origin of affective experiences of the same hue, can be applied to the CDI structure. So, we can consider if personal inefficiency, interpersonal problems and negative self-esteem from the structure of this questionnaire are causal antecedents of its affective components (depressive mood and anhedonia). This remains a hypothesis to be tested in a future research. In this research I included an instrument which differentiates between anxiety as a state and anxiety as a trait, like STAXI of Spielberger. Thus, it could answer whether self-esteem if assessed by its three sub-dimensions – corporal, psychic and social – is more strongly associated to the stable component of anxiety (anxiety as a trait), compared to its variable component (anxiety as a state). Including an instrument destined to measure the stress caused by school (mal)adjustment in the extensive research might also clarify the supposition according to which anxiety is more closely associated to stress through the situational element, while depression is more strongly associated to self-esteem due to their mutual element which is value-related behavior.

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