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ADAPTATION OF THE DEFENSIVE STYLE QUESTIONNAIRE 60 (DSQ-60) WITHIN A ROMANIAN SAMPLE

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ABSTRACT

Theoretical perspectives on mechanisms of psychological defense have a long history. In the last two decades, researchers have developed several instruments for the assessment of these mechanisms. The present paper presents results of the adaptation of Defensive Style Questionnaire 60 (DSQ-60; Thygesen, Drapeau, Trijsburg, Lecours, & de Roten, 2008) to a Romanian sample (N = 1011). The original DSQ-60 assessed the 30 defense mechanisms described by the Diagnostic and Statistical Manual of Mental Disorders (2003/2000). Results of the confirmatory factor analysis indicated that the original factor structure has acceptable fit on the Romanian sample. However, similar with previous researches on different cultures (e.g., Chinese, Dutch, Egyptian Arabic, Finnish, French, German, Italian, Norwegian; see Bond, 2000), the scales had very low internal consistency indicators (Cronbach's alpha). Therefore, alternate models for grouping the defense mechanisms into higher-order factors were investigated. Results of this analysis indicate a tri-factor solution that has good fit and acceptable internal consistency indicators.

KEYWORDS: *defense styles, adaptation, DSQ-60, confirmatory factor analysis*

INTRODUCTION

The concept of psychological defense is not new to psychology. Over the time, psychoanalytic (Freud, 2007), or neo-psychoanalytic (Freud, 2002) perspectives and recent approaches (APA, 2003/2000; Blackman, 2009; Ionescu, Jaquet, & Lhote, 2002) have suggested several taxonomies of mechanisms through which the human

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psyche can defend itself against real or imaginary threats. In a modern sense, defense mechanisms are considered to be „*unconscious psychic processes, which aim to reduce or annul the unpleasant effects of real or imaginary dangers, by reshuffling the internal and/or external reality, whose manifestations and behaviors, ideas or affects can be conscious or unconscious*" (Ionescu, Jaquet, & Lhote, 2002, page 35). An alternative perspective defines the defense mechanisms as mental operations through which the components of unpleasant affects are removed from the consciousness (Blackman, 2009), and they can be defined as immature, retroactive, mostly unconscious and with a low or absent adaptive level.

The analysis of defense mechanisms in clinical practice was recognized through the inclusion of this concept in the IV-th edition of the Diagnostic and Statistical Manual of Mental Disorders (APA, 2003/2000). Besides the description of each mechanism, DSM IV also contains a proper instrument of analysis for the psychological defense – Defensive Functioning Scale (DFS). DSF assesses 27 out of the 30 defense mechanisms described in DSM-IV.

The Defensive Style Questionnaire – 60 (DSQ-60, Thygesen, Drapeau, Trijsburg, Lecours and de Roten, 2008) is an instrument designed for the assessment of the defense mechanisms compatible with the mechanisms of psychological defense included in the DSM IV (APA, 2003/2000). Over time, DSQ has known several editions (with 40, 42, 81 or even 88 items), but DSQ-60 is the latest edition of this instrument. Some authors (Bond, 2004) consider that DSQ is the most used instrument for the analysis of psychological defense mechanisms, and it is included in the American Psychiatric Association's Handbook of Psychiatric Measures (APA, 2000, as cited in Drapeau, Thompson, Petraglia, Thygesen and Lecours, 2011).

The present study presents the process of adaptation for the Romanian population of the 60 items version of DSQ-60 (Thygesen et al., 2008), and analyses alternate scoring schemes for this questionnaire.

Defense and coping mechanisms

The concept of "analysis of psychological defense" implies a series of disputes regarding two ways of intrapsychic defense, which are the *psychological defense mechanisms and the coping mechanisms*. Currently, there is an ongoing debate over the significance of these two perspectives, firstly due to the evolution of the psychological defense technique and secondly due to the usage of this technique in various Psychology related fields of study.

From a conceptual perspective, DSM IV R (APA, 2003/2000) does not separate the two ways of intrapsychic defense, by offering a common definition for the two defensive ways. Both are considered to be „*automatic psychological processes, unconscious, through which the human subject protects himself against*

anxiety and against the acknowledgement of danger and internal or external stressors" (APA, 2003/2000, page 807). Although the finality of the two types of mechanisms is the global adaptation of the human subject, there still are significant differences between the two concepts, on a conceptual and on a finality level. Apart from the definitions of the two defensive types (see, Ionescu, Jacquet & Lhote, 2002; Blackman, 2009; APA, 2003/2000), there is a common belief regarding their distinction: from a conceptual point of view, the two are differentiated only on the level of significance. Considering the perspective of finality, *the coping mechanisms* are flexible, behavioral, targeted to a positive adaptation to the external reality, connected to mental health and well-being and they may be defined as: *"the sum of cognitive and behavioural efforts meant to control, reduce or tolerate internal and external exigencies which either threaten or outrun any individual's resources"* (Lazarus & Folkman, 1984 as cited in Ionescu, Jaquet, & Lhote, 2002, page 116). At the same time, *defense mechanisms* are oriented towards internal conflicts, associated with psychopathology (see Ionescu, Jaquet, & Lhote, 2002, page 35). Although with different concluding results, the end objective of the two patterns is the continuous adaptation of the human subject, reason for which DSM IV (2003/2000) offers a common definition for the two adaptive means.

Alternatives in the evaluation of psychological defense mechanisms

In spite of large number of instruments for the analysis of psychological defense mechanisms (Craşovan, 2011; Ionescu, Jaquet, & Lhote, 2002; APA, 2003/2000; Perry, 1990), all have weaknesses regarding their psychometric qualities and regarding the strategies used to evaluate these mechanisms.

Some authors suggest that the difficulties accountable in most of the scales designed to evaluate defense mechanisms and coping strategies can be grouped into three categories: (1) area of the problem, (2) target-period and (3) variants of answers for the questionnaire's items (Stone, Greenberg, Kennedy-Moore, & Newman, 1991). The areas of the problem (or its context) pose a concern, as certain defense mechanisms are not applicable in all domains (the questionnaires are applicable in particular in the clinical field). When it comes to the target-period, there is no certainty that subjects answer with reference to immediate reactions or strategies that would later be activated, after weeks or even months. Due to this fact, we do not have the certainty that the strategies we are measuring are equal, without being influenced by the intervention of unknown variables, because the period between assessment and manifestation of defense mechanisms can be very long (see, Stone, et al., 1991). Concerning the choices of answers for the items, the evaluation instruments for the coping strategies use a Likert scale, so that it is not always obvious what the person being evaluated means when the answer is, for

instance, „sometimes" or „often", or when he/she chooses a variant of answer between 1 and 5 or 1 and 9.

The methods of analysis for the defense mechanisms are classified into two broad categories, depending on the ways of investigation: self-reporting instruments and evaluation instruments, based on independent observers. Self-reporting measures are criticized because they reflect only the conscious derivates, losing the essence of defense mechanisms, thought to be unconscious psychological processes. However, the main advantage of self-reporting is its sensitivity to the current pathology of the human subject, such as depression or anxiety (Bond, 2004).

Evaluation instruments based on observers can be divided into three categories: standard interviews, projective tests and clinical methods. Interview methods (standardized interviews) are considered to be the benchmark of defensive style measurement (Van, Dekker, Penn, Abraham, & Schoevers, 2009). There is a very unclear relation between the self-reporting instruments and those based on interviews, some of the studies have discovered modest associations between them (Perry, & Hoglend, 1998) or the absence of association (Hersoug, Sexton, & Hoglend, 2002). The projective tests are a category of assessment methods that consist of free associations of the subject, starting from the premises of the existence of a true stimulation or having a variable degree of ambiguity (Ionescu, Jaquet, & Lhote, 2002). Several patterns based on the projection mechanism provide information on how the ego functions and the degree to which the ego is affected by these defense mechanisms; the maturity level of the defense alongside the type of the defensive mechanisms is also indicated, shaping an overall picture of the vitality and strength of the ego in the adaptation to reality and mediation between self, reality and (Blackman, 2009; Ionescu, Jaquet, & Lhote, 2002). The clinical method is frequently used in the Anglo-Saxon areas, based on the actual observation and treatment of patients, with explicit definitions for the defense mechanisms and a specific methodology (Ablon et al., 1974; Hackett & Cassern, 1974; Vaillant, 1976), combining the interview, the observation and the practical experience of the evaluators.

The description of DSQ-60 (Thygesen et al., 2008)

The Defensive Style Questionnaire (DSQ-60) is a self-report measure with 60 items, used for the assessment of psychological defense mechanisms. The questionnaire was developed by Thygesen and his collaborators (2008), and represents an abridged variant of the original one, devised by Bond in 1986. By developing DSQ-60, Thygesen et al. (2008) aimed to create a version of the instrument, which would be compatible with the defense mechanisms included in the DSM IV (APA, 2003/2000), and to optimize the instrument's psychometric qualities (fidelity and validity). The latter objective was targeted through several

versions of DSQ (with 40, 42, 81 and 88 items) (Trijsburg, Bond, Drapeau, Thygesen, de Roten, & Duivenvoorden, 2003).

The DSQ scales address each of the 30 individual defense mechanisms of the DSM IV (APA, 2003/2000). The score for each defense mechanism is obtained by adding the answer (chosen by the participant from a scale from 1 to 9) from the 2 items corresponding to the particular defense mechanism. Still, diagnosing thirty separate mechanisms has the disadvantage of a larger volume of information than needed for a psycho-diagnosis. Besides, the measurement for each mechanism through two items raises a series of problems related to the fidelity of the measurement. These problems have been mentioned in previous research (Thygesen, Drapeau, Trijsburg, Lecours, & de Roten, 2008; Trijsburg, et al., 2003), which suggested alternatives for grouping the 60 answers (see Table 1 for an overview of these alternatives). The strategy of grouping the answers has led to defining some super-factors of the defense mechanisms, with superior internal consistency to any of the thirty separate scales.

The evaluation of the global defensive functioning implies computing a general score for the answers to all of DSQ-60's items. This score represents a measure of the general maturity of the defensive functioning, with the high scores indicating a pronounced defensive functioning (Trijsburg, et al., 2003**).**

Thygesen, Drapeau, Trijsburg, Lecours, and de Roten (2008), suggested the evaluation of the defensive style starting from the subject's answers of the DSQ-60. This perspective clearly distinguishes three levels of defense, which correspond to the three levels of maturity for the defensive functioning. For each level, scores are computed through aggregation of the items that belong to each factor (Thygesen et al., 2008).

At last, the hierarchy with 7 levels of defense mechanisms (Perry, 1990) was proposed as an alternative to DSQ-60's scoring system. Similar with the maturity of the defensive functioning perspective, this alternative classifies the defense mechanisms starting from their content.

Table 1.
Alternatives in using DSQ-60

Alternative	Description
30 defense mechanisms (Thygesen et al., 2008)	affiliation; passive-aggression; altruism; anticipation; undoing; self-assertion; self-observation; splitting of self; displacement; devaluation of other; devaluation of self; dissociation; fantasy; reaction formation; idealization; projective identification; intellectualization; isolation; help-rejecting complaining; denial; omnipotence; projection; rationalization; repression; suppression; withdrawal; sublimation; acting-out; humor.
Global defensive functioning (Thygesen et al., 2008; Trijsburg et al., 2003)	The sum of all 30 mechanisms represents a measure of the general mature level of the defense mechanisms for the human subject.
Defensive style (Thygesen et al., 2008)	*The style of image distortion* is considered to be the immature level of the defensive functioning, includes: help-rejecting complaining, splitting of other, splitting of self, projection and projective identification. *The style of affective regulation* considered being the average level of defensive functioning includes intellectualization, dissociation, isolation and fantasy. *The adaptive style* considered being the mature level of functioning includes sublimation, self-observation, humor, anticipation and self-assertion.
7 levels hierarchy of the estimating scale for the defense mechanisms (Perry, 1990; Petraglia, Thygesen, Lecours, & Drapeau, 2009; Thygesen et al., 2008)	Level 1. *Action* includes: help-rejecting, complaining, acting-out and passive aggression. Level 2 *Major image distortion* includes: projective identification, splitting of other and splitting of self. Level 3. *Refusal to take responsibility* includes: fantasy, rationalization, projection and denial. Level 4 *Minor distortion of the image* includes: devaluation of other, devaluation of self, self-idealization and the idealization of the other, omnipotence. Level 5 The *neurotic* level includes: displacement, reaction formation, dissociation, repression. Level 6 The *obsessive* level includes: the isolation of the affect, intellectualization and undoing. Level 7 The *adaptive* level includes: sublimation, repression, self-assertion, self-observation, humor, anticipation, altruism, affiliation.

The present research

This present research presents results obtained on the adaptation of the DSQ 60 (Thygesen et al., 2008) on a Romanian sample. The objectives of this paper are: 1) to investigate the adequacy of the factor structure of DSQ-60, and 2) to analyze the internal consistency of DSQ-60 scales.

The adaptation of DSQ 60 questionnaire in Romania was carried out over a period of approximately 2 years, starting with January 2009 until March 2011. In the cross-cultural adaptation for DSQ-60 we followed the ITC rules and regulations (Hambleton, 2001) of cultural transposition. First, in order to obtain a Romanian version of the DSQ-60, we translated the items through retroversion. Thus, the items of the questionnaire were translated from English into Romanian by 2 proficient translators (university professors), working under the double-blind procedure. Initially, all items were translated from English into Romanian, and then, another 2 persons translated them from Romanian into English. The items resulting from the back translation were compared with those from the original questionnaire. Finally, the result (the elements of cultural context) was optimized for a better understanding of the item's meaning. Based on the identified correspondence, the translation into Romanian was considered a proper version of the original instrument.

METHOD

Participants
After the translation was completed, we administered the DSQ-60 to several convenience samples (249 students, 203 medical personnel, 30 hotel employees, 469 adults with various occupations). Out of the 1200 persons who completed the DSQ-60, 189 were eliminated from further analysis, because they failed to answer to more than three items. For the case in which the number of the items with no answer was 3 (or lower), the missing value was completed with an average value of that particular item reported to the average value of all other completed items.

Regarding the demographic characteristics of the subjects reported to the number of scores remained in the analysis, DSQ 60 questionnaire was applied to a number of 360 men (35.6%) and 651 women (64.4%), the average age of the subjects was 29.9 years (SD=10.89).

Regarding the level of education, 530 (52,4 %) graduated high school or lower, 418 (41,3 %) graduated college and 63 (6,2 %) held a degree in graduate studies.

Data analysis

We tested the factorial structure of DSQ-60 using confirmatory factor analysis (CFA). The option for this method is justified by the fact that it allows testing the adequacy level of a model established *a priori*, that describes the pattern of correlations between the variables included in the model (Sava, 2004).

The statistic analysis consisted of two steps. First, we analyzed the way in which the participants structure their answers to the questionnaire's items. We tested the following alternative models: (a) a basic model, which specifies the existence of 30 independent factors; (b) a model which specifies the existence of 30 correlated factors and (c) a model which specifies the existence of a unique factor (in order to assess the degree of manifestation for *the common method bias* – Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

In the second step, we have analyzed the way scores can be aggregated, for the 30 defense mechanisms. As mentioned in the introduction on this paper, aggregation of scores obtained for the 30 defense mechanisms allows for the simplification of interpretation, by cumulating the scores that bring similar information. Still, the existence of different ways of aggregation requires the testing of their adequacy degree for the Romanian sample. Thus, we tested the following models:

1) a model assuming a *unique supra-ordinate(second-order) factor*, which specifies the existence of a factor which explains the dispersion of all 30 factors;
2) a model assuming 3 *supra-ordinate uncorrelated (second-order factors*, according to the tri-factors pattern which defines: the style of image distortion, the style of affective adjustments and the adaptive style;
3) a model assuming 7 *supra-ordinate (second-order non-correlated factors*, according to the pattern suggested by Perry (1990);

We tested the models using AMOS 18 (Arbuckle & Wothke, 1999). For the estimation, we used the *maximum likelihood* method. We used the maximum likelihood method because it provides the most realistic estimations, as compared to other estimation methods such as *generalized least squares* or *weighted least squares* (Olsson, Foss, Troye & Howell, 2000). Regarding the fit indicators used for evaluation of model adequacy, we selected so they would not be influenced by sample size (*root-mean-square error of approximation – RMSEA*) or the estimation method used (*goodness of fit index – GFI* and the *adjusted goodness of fit index – AGFI*) (Fan, Thompson & Wang, 1999). For interpretation of fit indicators, we considered the recommendations of Sava (2004), Schreiber, Nora, Stage, Barlow, and King (2006), and Garson (2008). The following indicators of AMOS were examined: χ^2, GFI, AGFI and RMSEA. We used the $\Delta\chi^2$ test for assessing significance of the difference between two nested models.

We assessed the internal consistency of DSQ-60 scales using the traditional Cronbach's alpha index. Although the confirmatory analysis provided results that could have been used for computing other internal consistency indicators (such as McDonald's omega, for example), previous research on DSQ-60 used the Cronbach's alpha index of internal consistency. Therefore, we used the same index, with the purpose of facilitating any comparisons between our results and previous results reported in the literature.

RESULTS

Analysis of the DSQ-60 factor structure

In this analysis we tested the factor structure for DSQ-60, using the confirmatory factor analysis. At a first glance, the results presented in Table 2, indicate that the model assuming 30 correlated mechanisms is the most adequate in order to explain the relations between the answers of the subjects. With regard to this model, the values of fit indicators indicate an acceptable degree of adequacy: GFI values (.87) and AGFI values (.81) are close to the value suggested as appropriate (.90), RMSEA (.047, with values between .045 and .048) is lower than the critical value of .50, and the values of Hoelter index (337 for p=.05 and 346 for p=.01) are higher than critical value of 200. Although the chi-square index was statistically significant ($\chi^2(1305) = 4176.17$, p< .001) and could indicate a poor-fitting model, we took into account the fact that this index is influenced by the sample size and is less representative when large samples are used (Fan, Thompson & Wang, 1999). Moreover, a formal test of the difference in the χ^2 values of each model indicated that the difference between these two models is statistically significant: $\Delta\chi^2(435) = 7230.77$, p<.001.

Table 2.
Fit index for the models tested

Model	χ^2	GFI/AGFI	RMSEA	Hoelter .05	.01
30 independent factors	$\chi^2(1740) = 11406.94$, p< .001	.54/.51	.074 (.073-.075)	163	167
30 correlated factors	$\chi^2(1305) = 4176.17$, p< .001	.87/.81	.047 (.045-.048)	337	346
1 unique super-ordinate factor	$\chi^2(1710) = 8237.74$, p< .001	.70/.68	.061 (.060-.063)	222	227

Note. N = 1011. Confidence intervals for RMSEA are presented between brackets.

Table 3.
Descriptive statistics, inter-correlations and internal consistency of DSQ-60 scales

	Defense mechanism	Mean	Std. Deviation	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Altruism	14.72	3.38	*.61*													
2	Passive-aggressive	6.89	4.03	-.08*	*.27*												
3	Suppression	11.50	3.70	.16*	-.01	*.20*											
4	Sublimation	9.80	4.42	.11*	.03	.17*	*.39*										
5	Splitting of other	9.99	4.62	.07*	.26*	.11*	-.01	*.49*									
6	Rationalization	12.29	3.39	.22*	.07*	.20*	.17*	.18*	*.33*								
7	Humor	11.45	4.13	.18*	.05	.22*	.08*	.02	.19*	*.38*							
8	Projection	8.57	4.49	.01	.35*	.06	.06	.36*	.10*	.04	*.64*						
9	Reaction-formation	10.33	3.89	.20*	.01	.15*	.11*	.04	.11*	.17*	.09*	*.13*					
10	Self-observation	13.19	3.72	.36*	-.08*	.21*	.21*	.03	.30*	.23*	.02	.28*	*.47*				
11	Denial	9.23	4.06	.11*	.30*	.10*	.08*	.30*	.19*	.14*	.35*	.17*	.06	*.28*			
12	Devaluation of other	8.74	4.02	.03	.25*	.07*	.14*	.16*	.12*	.16*	.20*	.06	.04	.32*	*.38*		
13	Project_identification	8.79	3.94	.07*	.21*	.11*	.14*	.20*	.16*	.11*	.25*	.16*	.08*	.35*	.35*	*.27*	
14	Dissociation	7.78	3.94	-.01	.31*	.10*	.10*	.27*	.07*	.05	.35*	.14*	-.01	.36*	.27*	.30*	*.21*
15	Self-assertion	13.56	3.56	.31*	-.16*	.20*	.16*	.10*	.23*	.13*	-.09*	.16*	.33*	.02	.07*	.03	.03
16	Omnipotence	8.94	4.24	.09*	.19*	.16*	.14*	.21*	.21*	.16*	.18*	.11*	.06	.31*	.38*	.25*	.36*
17	Acting-out	10.52	4.74	.06	.27*	.06*	-.05	.39*	.19*	.12*	.28*	.01	.04	.30*	.20*	.24*	.24*
18	Devaluation of self	5.96	3.87	-.16*	.33*	.05	.02	.21*	.19*	.01	.33*	.04	-.09*	.21*	.17*	.22*	.31*
19	Fantasy	6.65	4.57	-.05	.32*	.04	.09*	.23*	.07*	.09*	.33*	.08*	-.06	.34*	.21*	.33*	.37*
20	Withdrawal	11.22	4.99	.18*	.21*	.06	.12*	.21*	.10*	.03	.21*	.03	.19*	.22*	.02	.16*	.16*
21	Intellectualization	9.73	4.25	.03	.29*	.17*	.15*	.32*	.22*	.09*	.31*	.14*	.09*	.36*	.20*	.23*	.34*
22	Splitting of self	7.77	4.33	-.07*	.30*	.01	-.01	.42*	.11*	.02	.37*	-.03	-.03	.32*	.27*	.27*	.35*
23	Displacement	9.19	4.20	-.01	.26*	.02	.11*	.29*	.15*	.11*	.35*	.08*	.06*	.39*	.24*	.29*	.27*
24	Repression	8.23	4.01	-.04	.18*	.13*	.06	.15*	.08*	.05	.19*	.11*	.01	.26*	.12*	.16*	.27*
25	Idealization	9.15	4.58	.17*	.16*	.08*	.17*	.19*	.11*	.07*	.14*	.13*	.11*	.22*	.15*	.28*	.25*
26	Isolation	9.52	4.36	-.02	.30*	.12*	.07*	.26*	.17*	.10*	.28*	.09*	.03	.27*	.17*	.17*	.30*
27	Help-rejecting complaining	7.23	4.21	-.06	.33*	-.06	.14*	.28*	.07*	.04	.44*	.05	-.01	.28*	.20*	.25*	.35*
28	Undoing	8.76	4.13	.04	.22*	.06*	.18*	.15*	.07*	.11*	.25*	.08*	.07*	.24*	.18*	.24*	.24*
29	Anticipation	11.73	3.85	.17*	.09*	.19*	.19*	.17*	.27*	.14*	.16*	.11*	.28*	.17*	.17*	.20*	.18*
30	Affiliation	11.11	4.65	.11*	-.03	.04	.20*	.08*	.11*	.06	.03	.04	.13*	.05	.01	.14*	.02

Note: N=1011; * correlation is significant at p<.05; internal consistency indicators (Cronbach's alpha) are presented in italics.

Table 3. *(continued)*
Descriptive statistics. inter-correlations and internal consistency of DSO-60 scales

		15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
15	Self-assertion	*.33*															
16	Omnipotence	.12*	*.51*														
17	Acting-out	.12*	.22*	*.64*													
18	Devaluation of self	.22*	.19*	.23*	*.38*												
19	Fantasy	.16*	.22*	.21*	.32*	*.71*											
20	Withdrawal	.05	.08*	.22*	.10*	.18*	*.77*										
21	Intellectualization	.01	.22*	.22*	.24*	.33*	.28*	*.34*									
22	Splitting of self	.01	.29*	.39*	.35*	.31*	.19*	.29*	*.30*								
23	Displacement	-.02	.17*	.39*	.26*	.32*	.23*	.36*	.40*	*.45*							
24	Repression	-.02	.14*	.06*	.18*	.24*	.08*	.16*	.19*	.18*	*.10*						
25	Idealization	.09*	.22*	.15*	.14*	.20*	.16*	.17*	.21*	.20*	.19*	*.38*					
26	Isolation	.03	.19*	.24*	.23*	.23*	.16*	.45*	.28*	.28*	.10*	.10*	*.33*				
27	Help-rejecting complaining	.07*	.19*	.27*	.34*	.37*	.17*	.31*	.34*	.40*	.21*	.21*	.31*	*.45*			
28	Undoing	-.01	.13*	.22*	.20*	.25*	.15*	.25*	.23*	.36*	.14*	.17*	.20*	.37*	*.27*		
29	Anticipation	.22*	.22*	.10*	-.01	.14*	.17*	.24*	.11*	.21*	.15*	.17*	.18*	.15*	.15*	*.27*	
30	Affiliation	.17*	-.01	.03	-.03	.09*	.04	.06	.03	.14*	.09*	.18*	-.05	.07*	.22*	.30*	*.51*

Note: N=1011; * correlation is significant at p<.05; internal consistency indicators (Cronbach's alpha) are presented in italics.

Although the model that assumed 30 correlated factors had an acceptable degree of adequacy, usage of all 30 defense mechanisms raise a series of problems regarding the internal consistency of these scales. According to results shown in Table 3, the internal consistency of the 30 scales for DSQ-60 is very low, with values ranging from .10 (for repression) and .77 (for retraction), with a medium value of .38. The correlations between the 30 scales of DSQ-60 have medium-to-small values (the median value of the correlation matrix is .17). Despite these small values, most of the relationships between the DSQ-60 scales were statistically significant because of the large sample.

Analysis of the DSQ-60 alternate aggregation solutions
The data aggregation alternatives obtained by using DSQ-60 appeared as a solution to (a) reduce the high level of information provided by this instrument and to (b) increase the internal consistency of the variables that were measured.

In our previous analysis, we showed that internal consistency indicators of DSQ-60 scales do not register acceptable values, thus aggregation of data is a necessity. In order to decide between alternative solutions for aggregation, we have tested several factorial models, using AMOS 18 (Arbuckle & Wothke, 1999). In each of these models, we assumed the existence of one or several latent variables, which predicted the defense mechanisms.

Table 4.
Fit index for alternate models to aggregate the DSQ-60 scores.

Pattern	χ^2	GFI/AGFI	RMSEA	Hoelter	
				.05	.01
1 unique super-ordinate factor	$\chi^2(405) = 2616.14$, p< .001	.80/.78	.074 (.071-.076)	175	184
3 non-correlated super-ordinate factors	$\chi^2 (77) = 888.80$, p<. 001	.89/.85	.102 (.096-.108)	112	124
3 correlated super-ordinate factors	$\chi^2 (74) = 399.01$, p<. 001	.95/.92	.066 (.060-.072)	241	267
7 non-correlated super-ordinate factors	$\chi^2 (377) = 4347.69$, p<. 001	.70/.65	.102 (.099-.105)	99	104
7 super-ordinate correlated factors	$\chi^2 (357) = 1822.32$, p<. 001	.88/.85	.064 (.061-.067)	223	243

Note. N = 1011. Confidence intervals for RMSEA are presented between brackets.

Fit indicators for each of the five alternate models of aggregation are presented in Table 4. Although the differences cannot be tested using the $\Delta\chi^2$ because the 3-factors and 7-factors models are not nested, the fit indicators of the model assuming 3 correlated factors had the highest values (GFI = .95; AGFI = .92; Hoelter .05 = 241). Therefore, we can conclude that this model is the most appropriate for describing the relations between the observed variables.
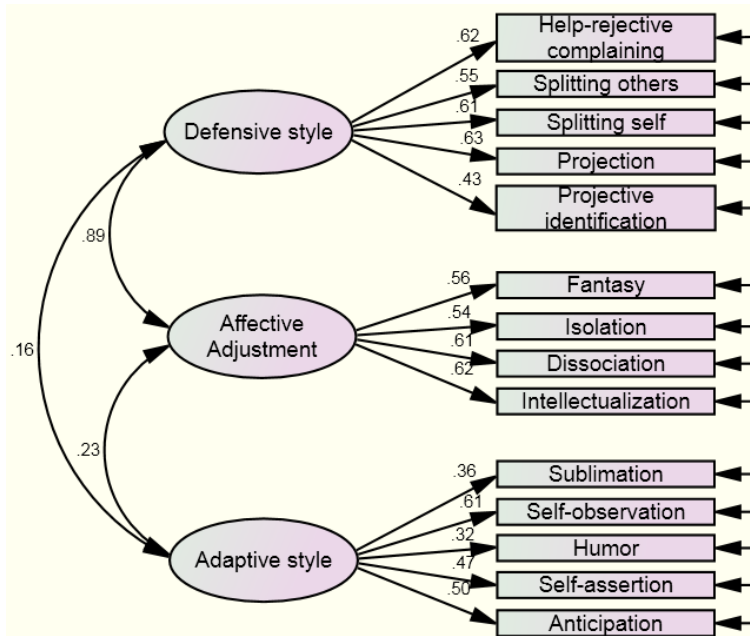
Figure 1.
Tri-factors pattern of scales aggregation for DSQ-60.

As one can notice from Figure 1, the values of factor-loadings range from .32 to .63, with an average value of .54. Our analysis estimated a very high canonic correlation between *Defensive Style* and *Affective Adjustment Style* (correlation equal with .89) and weak canonic correlations between *Defensive Style* and *Adaptive Style* (correlation equal with .16) or between *Affective Adjustment Style* and *Adaptive Style* (canonic correlation of .23).

Regarding the internal consistency of the three second-order factors, we obtained an alfa Cronbach coefficient of .73 for *Defensive Style*, .60 for *Adaptive Style* and .70 for *Affective Adjustment Style*, and the results were similar to those reported in other studies (Thygesen et al., 2008).

DISCUSSIONS

The purpose of this research was to investigate the factorial structure of the Romanian version of DSQ-60 (Thygesen et al., 2008). In addition, we attempted to eliminate some of the limits of the DSQ-60, mentioned by other authors (Thygesen et al., 2008; Petraglia, Thygesen, Lecours, & Drapeau, 2009). Thus, the volume of

the Romanian sample (N=1011) is larger than the ones reported by previous researches, and the questionnaire was applied to participants from the general population and not just students (without excluding this category, nevertheless). Moreover, the age of our participants range between 18 and 71 years, with the mention that age frequency distribution is positively skewed.

The results of confirmatory factor analysis have indicated an acceptable fix index for the model which presumed the existence of 30 correlated scales. Still, similar to the results previously reported in literature (Thygesen et al., 2008; Trijsburg et al., 2003), analysis of internal consistency indicated that these 30 scales have major limitations when it comes to the internal consistency (values between .10 and .77, with an average value of .38).

In light of these results, we attempted to identify alternate ways to use the subjects' responses to DSQ-60. Through structural equation modeling, we tested several alternative models to aggregate these responses: a pattern which specifies 3 defensive styles (suggested by Thygesen et al., 2008) and a pattern which specifies seven levels for the manifestation of the defense mechanisms (suggested by Perry, 1990; Petraglia et al., 2009; Thygesen et al., 2008). The results of this analysis indicate that the tri-factors model for the defensive styles is the most adequate for the evaluation of the defense mechanisms. This pattern has fit indicators with values over the critical values, and has better fit than its alternates. Regarding internal consistency indicators, the aggregation of data according to this model overcomes the limits of using 30 correlated scales. Still, the three defensive styles pattern has two important limits: first, it uses only 14 of the 30 defense mechanisms, which indicates that this model cannot assess interpersonal differences that are described by the DSM-IV (2003/2000). Secondly, there is a strong correlation between the *Defensive Style* and the *Affective Adjustment Style* (canonic correlation estimated around .89), which indicates a large conceptual overlap between the two styles.

This study introduced Romanian psychologists to one of the most widely used instruments of psychological defence mechanisms analysis in both clinical and non-clinical fields: DSQ-60. This instrument includes all psychological defense mechanisms mentioned in DSM IV (2003/2000). DSQ 60 also utilizes a larger number of defence mechanisms than other scales that are employed in the analysis of psychological defence mechanisms.

A limitation of the present research is the absence of data regarding the criterion validity (concurrent or predictive) of the Romanian version of DSQ-60. Therefore, future research should investigate the relations between DSQ-60 and other Romanian scales for assessment of defense mechanisms (for example, the SEMCA scale – Miclea, 1997).

In addition, future research should investigate how DSQ-60 discriminates between clinical and non-clinical populations. In clinical conditions the subjects are using certain psychological defence mechanisms of a higher intensity in comparison

to subjects with no psychological pathology. Such further research is needed for the evaluation of DSQ-60 concurrent and predictive validity.

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APPENDIX 1
The Romanian version of the DSQ-60

Instructaj: itemii din acest chestionar *se referă la părerile personale ale oamenilor despre ei însăși. Folosiți, vă rugăm, scală de noua puncte de mai jos pentru a indica în ce măsură vi se aplică dumneavoastră fiecare afirmație , încercuind un număr (de la 1 la 9).*

| *Nu mi se aplică deloc* | 1 2 3 4 5 6 7 8 9 | *Mi se aplică complet* |

Încercuiți un număr mai mare când sunteți de acord cu un item. De exemplu, dacă un item este complet aplicabil dumneavoastră, încercuiți 9.
Încercuiți un număr mai mic dacă nu sunteți de acord cu un item. De exemplu, dacă un item nu vă este deloc aplicabil, încercuiți 1.
Vă rugăm să nu omiteți nici un item.
Nu există răspunsuri corecte sau greşite.

Nr. item	Item	Scală dezacord-acord								
01	Sunt mulţumit când ajut pe alţii şi dacă mi s-ar lua asta aş fi deprimat.	1	2	3	4	5	6	7	8	9
02	Deseori sunt numit posac (ă), tăcut (ă).	1	2	3	4	5	6	7	8	9
03	Pot să nu mă gândesc la o problemă până am timp să mă ocup de ea.	1	2	3	4	5	6	7	8	9
04	Îmi controlez anxietatea făcând ceva constructiv şi creativ precum pictura sau lucrul în lemn.	1	2	3	4	5	6	7	8	9
05	Deseori îmi schimb părerea despre oameni; câteodată am o părere deosebită despre oameni, altă dată cred că oamenii sunt fără valoare.	1	2	3	4	5	6	7	8	9
06	Pot găsi motive solide pentru tot ce fac.	1	2	3	4	5	6	7	8	9
07	Pot râde de mine însumi cu destulă uşurinţă.	1	2	3	4	5	6	7	8	9
08	Există o tendinţă a oamenilor de a mă trata necorespunzător.	1	2	3	4	5	6	7	8	9
09	Dacă cineva m-ar ataca şi mi-ar lua banii, aş prefera să fie ajutat şi nu pedepsit.	1	2	3	4	5	6	7	8	9
10	Dacă am un conflict cu cineva, încerc să mă gândesc la ce vinovăţie aş putea avea în acel conflict.	1	2	3	4	5	6	7	8	9
11	Lumea zice că încerc să ignor faptele neplăcute ca şi cum ele n-ar exista.	1	2	3	4	5	6	7	8	9
12	Mă simt deseori superior oamenilor cu care sunt.	1	2	3	4	5	6	7	8	9
13	Cineva mă goleşte emoţional de tot ce am.	1	2	3	4	5	6	7	8	9
14	Când există un pericol real, e ca şi când n-aş fi acolo şi nu mi-e teamă.	1	2	3	4	5	6	7	8	9
15	Dacă sunt tratat incorect, îmi apăr drepturile.	1	2	3	4	5	6	7	8	9
16	Gestionez pericolul ca şi când aş fi Superman/avea puteri supraomeneşti.	1	2	3	4	5	6	7	8	9
17	Mă mândresc cu abilitatea de a readuce oamenii la condiţia lor reală.	1	2	3	4	5	6	7	8	9

Nr. item	Item	Scală dezacord-acord								
18	Deseori acţionez impulsiv când ceva mă deranjează.	1	2	3	4	5	6	7	8	9
19	În realitate, sunt destul de lipsit de valoare.	1	2	3	4	5	6	7	8	9
20	Când am de a face cu oameni, aceştia, deseori, sfârşesc prin a simţi ceea ce simt eu.	1	2	3	4	5	6	7	8	9
21	Am satisfacţii mai mari de la fanteziile mele decât de la viaţa mea reală.	1	2	3	4	5	6	7	8	9
22	Mă retrag când sunt supărat.	1	2	3	4	5	6	7	8	9
23	Când mă aflu în dificultate, deseori mă simt ireal.	1	2	3	4	5	6	7	8	9
24	Am talente speciale care îmi permit să trec prin viaţă fără probleme.	1	2	3	4	5	6	7	8	9
25	Prefer să vorbesc despre lucruri abstracte decât despre sentimentele mele.	1	2	3	4	5	6	7	8	9
26	Există întotdeauna motive solide când lucrurile nu merg în favoarea mea.	1	2	3	4	5	6	7	8	9
27	Rezolv mai multe lucruri visând cu ochii deschişi decât în viaţa mea reală.	1	2	3	4	5	6	7	8	9
28	Când oamenii se supară pe mine, tind să cred că ei exagerează.	1	2	3	4	5	6	7	8	9
29	Uneori mă cred înger, altă dată cred că sunt foarte rău.	1	2	3	4	5	6	7	8	9
30	Dacă cineva se supară pe mine, tind să mă supere lucruri pe care, în general, le ignor.	1	2	3	4	5	6	7	8	9
31	Devin în mod deschis agresiv când mă simt jignit.	1	2	3	4	5	6	7	8	9
32	Nu prea îmi mai amintesc nimic din perioada mea şcolară timpurie.	1	2	3	4	5	6	7	8	9
33	Mă retrag când sunt trist.	1	2	3	4	5	6	7	8	9
34	Simt întotdeauna că cineva cunoscut îmi este îngerul meu păzitor.	1	2	3	4	5	6	7	8	9
35	De obicei sunt mai rău decât cred oamenii că sunt.	1	2	3	4	5	6	7	8	9
36	În ceea ce mă priveşte, oamenii sunt ori buni or răi.	1	2	3	4	5	6	7	8	9
37	Dacă m-a supărat şeful, aş putea face o greaşeală în muncă sau să muncesc mai încet ca să mă răzbun.	1	2	3	4	5	6	7	8	9
38	Există cineva cunoscut care poate face orice şi care este absolut corect şi drept.	1	2	3	4	5	6	7	8	9
39	Dacă am avut experienţa a ceva neplăcut, atunci, în ziua următoare, uneori voi uita despre ce a fost vorba.	1	2	3	4	5	6	7	8	9
40	Ajutorul dat altora mă face să mă simt bine.	1	2	3	4	5	6	7	8	9
41	Pot să-mi ţin în frâu sentimentele dacă a le expune ar interfera cu ceea ce fac.	1	2	3	4	5	6	7	8	9
42	De obicei pot vedea partea hazlie a unei situaţii altfel grave.	1	2	3	4	5	6	7	8	9
43	Deseori mă trezesc că sunt foarte drăguţ cu oameni pe care, pe bună dreptate, ar trebui să fiu supărat.	1	2	3	4	5	6	7	8	9
44	Nu există treburi de felul „să găseşti ceva bun în fiecare", dacă eşti rău, eşti rău în întregime.	1	2	3	4	5	6	7	8	9
45	Când ceva ce fac nu iese bine, încerc să determin ce am neglijat.	1	2	3	4	5	6	7	8	9

Nr. item	Item	Scală dezacord-acord								
46	Oamenii au tendința de fi necinstiți ori incorecți cu mine.	1	2	3	4	5	6	7	8	9
47	Când trebuie să mă confrunt cu o situație dificilă, încerc să-mi imaginez cum va fi și-mi plănuiesc modalități de a-i face fața.	1	2	3	4	5	6	7	8	9
48	Doctorii niciodată nu înțeleg bine ce nu este în regulă cu mine.	1	2	3	4	5	6	7	8	9
49	După ce mă bat pentru drepturile mele, tind să mă scuz pentru incisivitate.	1	2	3	4	5	6	7	8	9
50	Dacă mă irită cineva, îi spun fără să-l rănesc.	1	2	3	4	5	6	7	8	9
51	Deseori mi se spune că nu-mi arăt sentimentele.	1	2	3	4	5	6	7	8	9
52	Când mă simt rău încerc să fiu împreună cu cineva.	1	2	3	4	5	6	7	8	9
53	Dacă pot prevedea că o să fiu trist peste un timp, pot să fac față situației mai bine.	1	2	3	4	5	6	7	8	9
54	Oricât m-aș plânge, nu obțin o reacție mulțumitoare de la ceilalți.	1	2	3	4	5	6	7	8	9
55	În loc de a spune exact ceea ce simt, îmi explic gândurile pe larg.	1	2	3	4	5	6	7	8	9
56	Deseori descopăr că nu simt nimic când situația ar părea că cere emoții puternice.	1	2	3	4	5	6	7	8	9
57	Când mă simt deprimat sau agitat, îmi place să mă apuc de o activitate creativă sau fizică.	1	2	3	4	5	6	7	8	9
58	Dacă aș intra într-o criză, aș căuta pe cineva căruia să-i împărtășesc grijile.	1	2	3	4	5	6	7	8	9
59	Dacă am un gând agresiv, simt nevoia de a face ceva în compensație.	1	2	3	4	5	6	7	8	9
60	Când se întâmplă ceva emoționant, tind să fac caz de detalii neimportante.	1	2	3	4	5	6	7	8	9

APPENDIX 2
The scoring key for the Romanian version of the DSQ-60

The scoring is based on the addition of the value chosen by the respondent for the items corresponding to each defense mechanism (each defense mechanism is alloted 2 items), For example, for *altruism* we add items 1 and 40 to get the final score.

Mechanism no.	Defense mechanism	Corresponding items
1.	altruism	1 + 40
2.	passive-aggressive	2 + 37
3.	supression	3 + 41
4.	sublimation	4 + 57
5.	splitting/other	5 + 36
6.	rationalization	6 + 26
7.	humor	7 + 42
8.	projection	8 + 46
9.	reaction formation	9 + 43
10.	self-observation	10 + 45
11.	denial	11 + 28
12.	devaluation of other	12 + 17
13.	projective identification	13 + 20
14.	dissociation	14 + 23
15.	self-assertion	15 + 50
16.	omnipotence	16 + 24
17.	acting-out	18 + 31
18.	devaluation/self	19 + 35
19.	fantasy	21 + 27
20.	withdrawal	22 + 33
21.	intellectualization	25 + 55
22.	splitting/self	29 + 44
23.	displacement	30 + 60
24.	repression	32 + 39
25.	idealization	34 + 38
26.	isolation	51 + 56
27.	help-rejecting complaining	48 + 54
28.	undoing	49 + 59
29.	anticipation	47 + 53
30.	affiliation	52 + 58