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SUMMARY OF THE PhD THESIS

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**EMOTION REGULATION.
DETERMINANTS, AFFECTIVE CONSEQUENCES AND REMEDIES**

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CHAPTER I. Theoretical Framework

1. Research questions

In this thesis we aim at building a coherent logically-determined understanding of the construct of emotion regulation (ER) by addressing its determined factors and affective consequences, as well as the possibilities of remedying the dysfunctional strategies.

The question „why do people choose a particular strategy of emotion regulation over another?“ is considered by Campos (2011) as pivotal, making the object of the present study. While the predisposing factors (personality) have already been integrated in predictive models for RE mechanisms (Gresham, 2012), the influences coming from the family direction have been less studied. Hence the first main question:

(1). Which of the four variables (structure of personality, adult attachment, style of socialization of emotions, implicit cognitions regarding emotions) has the strongest impact on RE strategies?

The integration of the demographic variables (age and gender) into the analysis will respond to two adjacent questions:

(2). Are there gender differences between emotion regulation strategies?

(3). Are there dynamic aspects in the emotional regulation varying in accordance with the age brackets and stages of development (adolescence/youth)?

The parents' reactions to the child's emotions are, in their turn, influenced by the child's gender and age (Klimes-Dougan, 2007). Based on these assumptions, there are two questions arising:

(4). Does parentality (seen as a style of socialization of emotions in childhood and dimensions of adult attachment) manifest itself differently according to the child's gender?

(5). Is the adolescent's perception of parentality different from the one of a young person?

The second part of the thesis will investigate the consequences of the emotion regulation at the affective level. According to the employed methodology, we will follow three different

research directions: regression analysis, mediation model and laboratory experiment. The regression analysis will respond to the following questions:

(6). *What is the impact of the RE strategies on the wellbeing, in comparison to the personality structure and the parental correlatives?*

The analysis of the specialized literature in the field of parenting shows that family influences are more often than not reduced to the mothers' responses, although the few studies involving also the fathers revealed interesting data (Zeman, 2010).

(7). *Does the predictive model of wellbeing differ from adolescents to young people?*

(8). *Does the predictive model of wellbeing vary based on gender?*

Recent research regarding the theory of emotion regulation have put forward the idea that the RE strategies can be seen as possible criteria of diagnosis, both as predictors and mediators for psychotherapeutic intervention (Rottenberg & Gross, 2007). By way of consequence, we aim at investigating ER as a mediating variable and to provide an answer to the question:

(9). *Is cognitive reevaluation a mediating variable between the personality factors, the family correlated and wellbeing?*

The experimental design will elucidate the dilemmas regarding the affective consequences of the ER strategies:

(10). *Which are the affective consequences of cognitive reevaluation and expressive suppression (as ER strategies) in regulating anger (as an externalizing emotion) and of sadness (as internalizing emotion)?*

2. Summary of the theoretical chapters

The theoretical chapters were built in accordance with our research objectives. After posing the research questions (**chapter 1**) and providing arguments in favor of investigating adolescence and youth as life stages (**chapter 2**), in **chapter 3** we analyzed the main constructs, respectively variables, from the following perspectives: arguments for the presence of those particular constructs, place and role of the constructs in question in our research design, definition of the constructs, relevant theoretical models, the theoretical model within whose framework one particular construct or another is to be analyzed and a synthesis of the models of identification of the convergences and divergences. The constructs thus analyzed are: *emotion regulation, personality, adult attachment, parental style of socialization of emotions, cognitions regarding the emotions and wellbeing*. **Chapter 4** is a synthesis of the specialized literature from the perspective of the factors determined by ER.

Chapter 5 offers a systematized and well-structured image of the consequences of emotion regulation. **Chapter 6** provides a synthetic table of the ER and wellbeing determinants, by identifying their convergent and divergent aspects, certitudes and dilemmas, as well as future research directions. **Chapter 7** develops the practical applied dimension of the ER and is in line with future research approaches.

CHAPTER II. Applied Investigation

Study 1. Validation of tools

Our investigative approach resorted to eight instruments, six of which were subject to a translation process and adjusted to the Romanian population (1). The scale measuring the parental style of socialization of emotions - The Emotions as a Child Scale – EAC, Garside & Klimes-Dougan, 2002b; (2). The scale measuring the dimensions of adult attachment - Inventory of Parent and Peer Attachment- IPPA, Greenberg & Armsden, 2009; (3). The scale of the Implicit Theories of Emotions - TIE, Tamir et. al. 2007; (4). Emotion Regulation Questionnaire – ERQ, Gross & John, 2003; (5). The Positive and Negative Affect Schedule- PANAS, Watson, Clark & Tellegen, 1998b; (6). The Satisfaction with Life Scale - SWLS, Diener, 1985. The instruments aimed at measuring the profile of the emotional distress (PDE, Opriș & Macavei, 2005) and the personality (FFPI- Five-Factor Personality Inventory) had already been translated and calibrated to the Romanian population, so they were tested only in terms of the psychometric features for the group of subjects.

Study 2. Determinants of emotion regulation

Purpose: measuring the impact of the intrinsic factors (personality structure) and of the extrinsic factors (dimensions of the adult attachment and the style of socialization of emotions) on the strategies of emotion regulation across adolescence and youth.

Group of subjects: 214 subjects aged between 14 and 30 (19.69 ± 4.55).

Conclusions: according to the predictive model (hierarchical multiple regression) of the expressive suppression (ES), the personality factors: *extraversion* and *emotional stability* exert the biggest explanatory influence. With less explanatory influence but acting as predictive factors are some of the parental strategies of socialization of emotions: *anger*

punishment - mother, sadness punishment - father, overlooking sadness - mother, overlooking anger - father. The regression analysis aimed at cognitive reevaluation (CR) failed to identify any variable as a predictor. Integrating the demographic variables into the analysis reveals differences only in terms of gender (and not of age) regarding ER: ES is much more frequently activated by boys rather than girls while CR does not show differences in terms of gender. Yet there are differences between boys and girls in perceiving the strategies of socialization of emotions used by their parents during their childhood. Age modifies the perception of the strategies of socialization of emotion used by parents across childhood.

Study 3A. Emotion regulation and its affective consequences. Regression analysis

Purpose: measuring the impact of both the intrinsic factors (personality structure) and the extrinsic ones (dimensions of the attachment towards mother/ father and the mother's/ father's style of socialization of emotions), as well as the impact of the strategies of emotion regulation (cognitive reevaluation, expressive suppression) on the general wellbeing, across adolescence and youth.

Group of subjects: 516 subjects, adolescents and young people, aged between 14 and 34 ($M = 18.62$; $DS = 3.32$).

Conclusions: the personality factors are a constant presence in the prediction of wellbeing. Among them all, *emotional stability* is the first responsible for the variance of the predictive model. *Extraversion* ranges second as a personality factor accounting for the state of wellbeing. As far as the **parental correlates** are concerned, mention must be made of the predictive power of the father's style of response to the child's emotions. Among the dimensions of adult attachment, the alienation from the father is the predictor bearing the highest value of the standardized coefficient (in comparison with all the variables predicting positive affects). **Emotion regulation** is a predictor only for affects (and not for emotional distress nor life satisfaction). ES predicts the positive and negative affects. CR is a predictor only for the positive affects.

Study 3B. Cognitive reevaluation, mediating variable

Purpose: studying the explanatory mechanisms of the relations personality - wellbeing, parental style of socialization of emotions - wellbeing, dimensions of adult attachment –

wellbeing, by investigating the status of mediating variable of cognitive reevaluation among personality factors, respectively family correlates and wellbeing (*bootstrapping* method).

Group of subjects: the same as in study 3A.

Conclusions: three of the personality factors are (partially) mediated by cognitive reevaluation in relation to the positive affects: extraversion, conscientiousness and emotional stability. By way of consequence, the personality structure influences the positive affects indirectly, by means of strategies of emotion regulation. Three of the forty parental strategies of socialisation of emotions are mediated by CR in relation to wellbeing: the rewarding of happiness by the father, the fear dismissing by the mother and the sadness dismissing by the father. Among the six variables measuring the dimensions of adult attachment, the trust placed in the mother is mediated by CR in relation to positive affects.

Study 4. Affective consequences of emotion regulation. Experiment

Purpose: investigation of the influence exerted by the strategies of ER and by the personality structure on emotional experience.

Group of subjects: 350 respondents, 219 of whom were statistically selected so as to counterbalance the two experimental groups in accordance with the personality variables (extraversion and emotional stability). The subjects who were included in the statistic analysis had an average age of 22.07 ($M = 22.07$, $DS = 6.14$), 159 of whom were female. The subjects were randomly distributed in one of the three groups of research (e.g. cognitive reevaluation, expressive suppression, control/without specific instructions of ER).

Procedure: before the study began, in order to have their level of extraversion and emotional stability established, the respondents filled in two scales designed to measure the two personality dimensions. Also at this stage, the respondents had their emotions of anger and sadness assessed, which was meant to evaluate their initial moods. In accordance with the experimental condition, in the next stage the respondents received specific instructions (adapted after Richards & Gross, 2000) which were displayed on the projection screen.

Conclusions: the multivariate analysis of variance MANOVA (3x3x3 type) revealed that cognitive reevaluation regulates sadness (yet not anger). The subjects from the suppression condition recorded less positive affects in comparison to the reevaluation group, while in relation to the control group, there were not significant differences. Anger, as an externalizing emotion, responds less to the investigated strategies of regulation (in comparison with sadness) and more to the personality factors (level of emotional stability). Those cognitively

reevaluating a sadness-generating situation will have a higher level of positive affects in comparison with those suppressing their emotion (the group characterized by expressive suppression) or with those who do not take any action (the control group). These results confirm the importance of studying the emotion regulation in the case of discrete emotions.

CHAPTER III. General conclusions and implications

1. General conclusions

The strategies of emotion regulation are determined by a series of factors (the personality structure in particular) which in their turn influence the wellbeing both directly and indirectly and gives rise to different affective consequences in accordance with the type of regulated emotion and also the dynamics of the personality dimensions.

2. Original contributions of the PhD Thesis

(a). Theoretic contributions

In chapter 1 we made an analysis and a synthesis of the literature regarding the relations between all the variables subsequently included (in chapter 2) in statistical analyses (determined factors and consequences of the emotion regulation).

(b). Methodological Contributions

The methodological contributions are related to the adjustment of certain tools to the Romanian population:

- Scale (Klimes-Dougan et al., 2007), inexistent in Romanian literature
- Scale IPPA (Greenberg M. T., Arnsden, G., 2009), inexistent in Romanian literature
- Scale ERQ (Gross & John 2003)
- Scale TIE (Implicit Theories of Emotions, Tamir et., al. 2007)

(c). Practical Contributions

- the building of a predictive model for each of the ER strategies (cognitive reevaluation and expressive suppression) where we integrated a set of predictive variables relevant both numerically (53 independent variables were introduced into the analysis), and in terms of their diversity (we took into account factors pertaining to the hereditary makeup, to the family environment as well as individual mechanisms of emotion regulation)
- capturing the differences in terms of gender in the process of socialization of emotions and in acquiring strategies of ER. The individual analysis of the relationship mother-child, father-

child in predicting the style of ER and the wellbeing reveals aspects which have not been addressed by the specialized literature so far.

- constructing an integrative predictive model of wellbeing which enables the comparison of the predictive power of the factors present in the analysis. In the specialized literature, the predictive models of the existing wellbeing analyze separately the strategies of emotion regulation, parental correlates and the personality factors.

- studying the mediating effect of cognitive reevaluation between the personality structure, the parental correlates and the wellbeing respectively.

- experimental investigation of the positive effects of the cognitive reevaluation in regulation of discrete emotions (sadness).

3. Implications for future studies

(a). Emotion regulation requires future investigations meant to identify the predictors of cognitive reevaluation. We must extend our research to the level of strategies of ER which should extend to other temporal moments (e.g. the selection of the situation - perceptive and self-perceptive strategies, the shifting of attention – attention-focused strategies). It is essential that the efficiency of the ER strategies should be studied in relation to concrete emotions; likewise, the sphere of investigated emotions should be extended (encompassing the positive ones). Beyond the investigative aspects, ER has a strong practical nature which will be looked into in terms of efficiency of an ER training for the people who are used to resorting to disadjustment strategies.

(2). Parentality, although a secondary variable (constantly introduced in the predictive models), revealed extremely interesting and even surprising results: although deeply involved in the emotional life of her children, the mother has a rather reduced impact in comparison with the influence exerted by the father, in predicting the wellbeing. In order to provide a correct explanation of this aspect, we must refine the parental variables and corroborate them with a longitudinal investigation meant to measure up the parents' impact at certain stages of development (e.g. every five years) of the same group of subjects. An analysis of the dyadic data (coming both from the parent and from the child) could cast light on several aspects. The obtained results are intended at an approach of practical intervention in the sphere of parentality by devising and then testing the results of a training session on the regulation of discrete emotions (anger, fear, sadness) in the relationship parent (mother, father) – child in different stages of development (late childhood, puberty, adolescence).

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