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**PERFECTIONISM IN HIGH SCHOOL STUDENTS, ACADEMIC
EMOTIONS, REAL AND PERCEIVED ACADEMIC
ACHIEVEMENT**

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Abstract

Being studied initially in the field of psychopathology, the *perfectionism* was considered as a personality style characterized by negative aspects like striving to be perfect, self-criticism and also low self-esteem and depression. But the last decade's research drew up perfectionism as a multidimensional construct which imply personal and social elements, with both positive and negative effects onto performance and development. So, the multidimensional model belonging to Hewitt and Flett (1991) distinguish between *self-oriented perfectionism*, *other-oriented perfectionism*, and *socially prescribed perfectionism*. In the educational field, the perfectionism was studied in relation to academic performance and motivation, to achievement goals and to some negative emotions like anxiety, shame, and guilt. But there are just a small number of studies that analyzed the perfectionism in relation to positive emotions in educational settings. Pekrun, Goetz, Titz, and Perry (2002) indicated that students are experiencing a rich diversity of emotions in different academic contexts. In this study, we explored the *self-oriented* and the *socially-prescribed perfectionism*, in relation to positive and negative test-related emotions, within a group of 187 high school students. Results indicated that, when controlling for academic achievement, hope and pride, but also anxiety, anger and guilt are significantly associated with *self-oriented perfectionism* and uncorrelated with *socially-prescribed perfectionism*. Instead, the *socially-prescribed perfectionism* was correlated but the *self-oriented perfectionism* was not correlated with *hopelessness*.

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Keywords: Self-oriented perfectionism; socially prescribed perfectionism; academic emotions; academic achievement.

1. Introduction

Giving the global social interest in performance and excellence, the need to establish high standards went up in schools. The pupil's perfectionist propensity is augmented nowadays by some certain parameters of the educational system: the risen of the school's quality, the emphasizing of the social comparison, the salience of self-other evaluations and the preoccupation for self development and assertion (Rice, Richardson, & Ray, 2016). Pupils are often involved in competitive evaluations which

bring out important effects on personal and social standards, on emotions and performances. The perfectionist personality style is a result of a process of setting excessively high standards because of the requests and expectations of significant others and based on own previous performances. The aspiration to perfection is a human ideal intimately bound with the self-actualization need, but when it turn into a personality trait, beside positive issues, are also coming some negative cognitive and affective products, a decrease in well-being and in adaptability. In this paper, we analyze perfectionism in connection with positive and negative academic emotions experienced by high school students, in evaluative contexts.

2. Perfectionism

In ordinary language perfectionism is associated with positive features of the development and with performance, but in clinical and personality psychology this construct is connected mainly with adaptation problems as low self-esteem (Ashby & Rice, 2002), depression and anxiety (Ashby, Rice, & Martin, 2006; Hewitt et al., 2002) obsessive-compulsive symptoms (Rhéaume, Freeston, Dugas, Letarte, & Ladouceur, 1995), procrastination (Flett, Blankstein, Hewitt, & Spomenka, 1992; Frost, Marten, Lahart, & Rosenblate, 1990). Initially the perfectionism have been defined as a single dimension psychological construct, which describe a person's tendency to search for perfection, to establish unrealistically standards, and to be extremely critique with himself and others. Other authors consider that perfectionism does not imply only negative features. Performance motivation, development and orderliness desire, tenacious effort trough positive reinforcement being acknowledged (Fedewa, Burns, & Gomez, 2005). Positive and negative effects of perfectionism may be attributed to the complex, multidimensional structure of the construct, involving both personal and social aspects, adaptive and maladaptive characteristics.

Actually, there are three multidimensional conceptualizations of perfectionism that have been most intensively studied empirically. One of them belongs to Frost et al. (1990) and proposes six dimensions: high personal standards, concern over mistakes, parental expectations and parental criticism, doubt about actions, preference for orderliness. Slaney, Rice, Mobley, Trippi, and Ashby (2001) developed another theory of the perfectionism in three dimensions: personal standards, orderliness, and discrepancy between performance and standards. Hewitt and Flett (1991) have defined perfectionism as a three dimensions construct: *self-oriented perfectionism (SOP)*; *other-oriented perfectionism (OOP)*, and *socially prescribed perfectionism (SPP)*. SOP is characterized by setting high and exacting standards for oneself and striving to attain these standards and to avoid failures. OOP is about unrealistic high standard for significant others, expecting that they will act perfectly and being extremely exigent with them. SPP deal with the perceived need to attain the standards and the expectations prescribed by other significant persons. The research performed by Hewitt and Flett (1991) showed that the SOP was highly correlated with high personal standards, self-criticism, personal performance importance, and personal goals importance. It was just moderately correlated with anxiety, hostility, and depression. Instead, OOP was positively associated with other-directed blame, narcissism, social importance goals, authoritarianism and dominance, but did not correlate with anxiety or depression. SPP was associated with self-criticism, overgeneralization of failure, self-blame, other-blame, fear of negative evaluation, need for approval of others, and social goals importance, but was not correlated with high personal standards. SPP was also linked with some indices of general maladjustment, such as somatic symptoms, depression, anxiety,

hostility etc. In relation to perfectionism and its connection with negative emotions, research show that SOP does significantly correlate with guilt, self-disappointment, and anger, SPP does significantly correlate with anger, while the OOP was not associated with negative emotions (Hewitt & Flett, 1991). Generally, research show that SPP is stronger correlated with negative emotional symptoms than the SOP (Einstein, Lovibond, & Gaston, 2000) and it is a significant predictor for the social anxiety (Cox & Chen, 2015).

Until now, the adaptive and maladaptive perfectionism has been studied in the educational psychology field mainly in relation to performance and motivation. The positive or negative nature of this construct has been discussed in rapport with the high standards' feature, like being realistic and able to motivate or, on the contrary, being unrealistic and undermining the motivation (Rice et al., 2016). High standards are not incompatible with adaptation unless they are accompanied by exaggerated self-criticism. Therefore, the perfectionism characterized by realistic high standards has been associated with successful academic results, while the perfectionism characterized by self-criticism had a variable association with performance (Accordino, Acordino, & Slaney, 2000). Other studies indicated that SOP positively predicted mastery goal orientation and SPP positively predicted performance-approach goal orientation (Damian, Stoeber, Negru, & Băban, 2014). A lot of research does explore the connection of the perfectionism with different negative emotions, but there is not conclusive data about positive emotions of pupils in function of the perfectionism.

3. Academic Emotions

Because of the fact that the educational environment is prevalently evaluative, research has been focused mainly on test anxiety and much less on the other emotions involved in the cognitive, social and motivational process regulation (Schutz & Pekrun, 2007). Thus, success enjoyment, pride, hope, but also shame, frustration, boredom, or hopelessness are examples of emotions involved in school adaptation process. An important contribution for investigating these emotions is realized by Pekrun and his collaborators in the framework of *control-value theory* (Pekrun, Frenzel, Goetz, Perry, 2007; Pekrun et al., 2002). Three categories of emotions related to learning activities and to competence-relevant activities and outcomes have been identified and named *academic* or *achievement emotions* (Pekrun, Elliot, & Maier, 2009; Pekrun et al., 2002). According to the control-value theory, the academic emotions are generated by some antecedents, like: *the subjective control* over achievement activity and outcomes (e.g. self-efficacy expectancy, outcomes expectancy), *the subjective value* of these activities and outcomes (e.g. appreciating an academic activity *per se* or for its utility to produce good grades), *physiological processes* (e.g. heartbeats, breath), *the design of learning environment* (e.g. autonomy support, feedback, task demands) (Pekrun et al., 2007). In their turn, academic emotions have further effects toward cognitive process, motivation and academic performance. In contrast with former theories that defined school-related emotions as generalized traits, this approach delineates a specific domain for the affective reactions. In this new acceptance, causal attribution or the perceived value of the achievement activities are much more predictive for emotions than student's personality traits (Pekrun et al., 2007).

Academic emotions were classified according to object focus in two categories: *activity-related emotions* (e.g. enjoyment, anger, hopelessness, or boredom experienced at learning) and *outcome* or *test-related emotions* (e.g. enjoyment, hope, anxiety, hopelessness or shame relating to success or failure)

(Pekrun, Goetz, Frenzel, Barchfeld, & Perry, 2011). Depending on the degree of activation, academic emotions can be grouped into physiological activating versus deactivating emotions, like hope versus hopelessness (Pekrun et al., 2011). To assess emotions experienced by the students in various academic settings, a self-report instrument with 24 scales, named *Academic Emotions Questionnaire (AEQ)*, was developed and validated by Pekrun and his colleagues (Pekrun, Goetz, & Perry, 2005; Pekrun et al., 2002; Pekrun et al., 2011).

Achievement emotions have been already investigated in relation with different motivational variables and with academic performance. In two studies, Pekrun, Elliot, and Maier (2006, 2009) noticed the association between academic emotions, achievement goals, and academic performance. Mastery goals positively predicted enjoyment, hope and pride and negatively predicted boredom, anger, and hopelessness. Performance-approach goals positively predicted hope and pride, but is unrelated to enjoyment. Performance-avoidance goals negatively predicted hope and pride and positively predicted anger, anxiety, hopelessness and shame. Also, academic emotions mediated the link between achievement goals and performance: hope, pride, boredom, anger, hopelessness, and shame mediated the link between mastery goals and performance; hope and pride mediated the link between performance-approach goals and performance; hope, pride, anger, anxiety, hopelessness, and shame mediate the link between performance-avoidance goals and performance (Pekrun et al., 2006, 2009). Another research indicated that positive activating emotions like enjoyment, hope and pride were positively correlated with academic self-efficacy, effort, intrinsic motivation, learning strategies and performance, but the negative deactivating emotions, like hopelessness and boredom, were negatively correlated. For the negative activating emotions, like anger or anxiety, the relationships were more complex, these emotions being negatively correlated with intrinsic motivation, learning strategies, but positively with extrinsic motivation and achievement outcome (Pekrun et al., 2011).

4. Purpose and Hypotheses

As reflected by studies, alongside its negative psychopathological associations, in education the perfectionism is connected with school motivation and achievement (Stoeber & Rambow, 2007), with achievement goal orientations (Damian et al., 2014), and with positive emotions like hope and pride (Ashby, Dickinson, Gnilka, & Noble, 2011; Stoeber, Kobori, & Tanno, 2013). In this field, no matter the psychological instrument used for measurement, two dimensions of perfectionism were considered: positive vs. negative; adaptive vs. maladaptive. But there are too little research using the multidimensional model of Hewitt and Flett (1991) in order to analyze perfectionism alongside with specific academic emotions.

The general purpose of this study is to analyze the relationship between self-oriented and socially prescribed perfectionism and positive and negative academic emotions related to evaluation context, taking into account also academic achievement. We removed from our study other-oriented perfectionism because this dimension was not correlated with emotions in children and adolescents. First, we verified if there is a correspondence between real and perceived academic achievement. Next, we analyzed the correlations between perfectionism and academic emotions and investigated the contribution of the self-oriented and socially prescribed perfectionism in explaining the variation of test-related emotions. Based on previous researches, we suppose that: 1) Self-oriented perfectionism (SOP) will positively correlate

with both positive (hope and pride) and negative test-related emotions (anxiety, anger, and guilt), in academic achievement control condition; 2) Socially prescribed perfectionism (SPP) will positively correlate only with negative emotions (anger, anxiety, shame and hopelessness), in academic achievement control condition.

5. Participants and Measures

A number of 187 adolescents (age 15.76; SD=.73; range 14-18; 54% females) from two high-schools in Iasi, Romania, were involved in a paper-and-pencil data collection during classes.

The Child-Adolescent Perfectionism Scale (CAPS) (Flett, Hewitt, Boucher, Davidson, & Munro, 1997) is a multidimensional 22 Likert items scale that measures with two subscales (SOP and SPP) individual difference in perfectionism in children and adolescents. Self-oriented perfectionism (e.g. „I want to be the best at everything I do.”) is measured with 12 items and socially prescribed perfectionism (e.g. „I feel that people ask too much of Me.”) with 10 items. Higher scores on this scale indicate high levels of perfectionism. Psychometric qualities of the scale have been verified in a few international investigations (Bento, Pereira, Saraiva, & Macedo, 2014; Hewitt et al., 2002) and in Romanian language the scale have been translated by two independent translators.

Achievement Emotions Questionnaire (AEQ) is a multidimensional self-report instrument elaborated by Pekrun and colleagues (Pekrun et al., 2005; Pekrun et al., 2002) which measures students' emotions in three different academic situations: attending class, learning activity, and taking exams or tests. The instrument is designed to be modular; the three sections of the AEQ and the different emotion subscales can be used together or separately, according to the needs of the researcher. In this study we used a short form of the test-related emotions scale: *enjoyment* (3 items; e.g. „For me the test is a challenge that is enjoyable.”), *hope* (5 items; e.g. „I think about my exam optimistically.”), *pride* (4 items; e.g. „I think that I can be proud of my knowledge.”), *relief* (2 items; e.g. I am relieved after completing an exam regardless of outcome.”), *anger* (6 items; e.g. „I get angry about the amount of material I need to know.”), *anxiety* (6 items; e.g. „Before the exam I feel nervous and uneasy”), *shame* (3 items; e.g. „I am ashamed of my poor preparation.”), and *hopelessness* (3 items; e.g. „When I think of an exam I lose all hope that I could do well given topics”). We elaborated and added one more subscale for *guilt* (3 items; e.g. „I feel guilty when I do fail on tests”). Students rate their emotional experiences in three temporal contexts (before, during and after examinations) on a seven point Likert scale. Higher scores on this scale indicate high levels of the intensity of emotions.

Academic achievement (AA) – Participants reported the average of grades earned in the previous semester in all subject areas.

Perceived academic achievement (PAA) – It is a single item scale which measure students' perception onto their own academic outcomes: „If you were to appreciate your school outcomes on a scale with 10 levels, where do you think is your place, *closer to failure (1)* or *closer to success (10)*?”

6. Results

All the subscales had a good internal consistency (Tabel 1). There are no discrepancies between real (AA) and perceived academic achievement (PAA), as correspondence analysis and correlation

coefficient (.74) denote. Bivariate correlation analysis showed that there is a significant correlation (.68) between the two types of perfectionism. Self-oriented perfectionism correlated positively with each positive and negative test-related emotion, except hopelessness and also with academic achievement. Socially prescribed perfectionism does positively correlate with each positive and negative test-related emotion, but it does not significantly correlate with relief after tests (Table 1).

Table 1. Correlations between variables. Descriptive Statistics and Cronbach's Alfa

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
Perfectionism													
SOP													
SPP	.68***												
Test-related emotion													
Enjoyment	.14*	.16*											
Hope	.41***	.21**	.36***										
Pride	.48***	.28***	.24**	.65***									
Relief	.24**	.14	.23**	.47***	.47***								
Anger	.45***	.22**	-.06	.13	.31***	.07							
Anxiety	.63***	.41***	.00	.32***	.45***	.21**	.71***						
Shame	.36***	.31***	.14*	-.03	.01	-.01	.49***	.44***					
Hopelessness	.08	.25***	-.00	-.31***	-.24**	-.26***	.15*	.08	.46***				
Guilt	.53***	.35***	.12	.37***	.40***	.25***	.46***	.58***	.35***	-.02			
Control variables													
AA	.27***	.18*	.00	.36***	.44***	.27***	.19**	.32***	-.02	-.27***	.21**		
PAA	.34***	.14*	.05	.35***	.39***	.24***	.19**	.35***	.03	-.24***	.24**	.74***	
Gender (female)	.28***	.11	.03	.21***	.28***	.02	.29***	.44***	.09	.18*	.27***	.35***	.36***
Descriptive													
M	64.27	41.58	11.62	26.20	20.66	9.87	28.36	29.03	12.56	11.09	15.21	7.86	7.77
SD	14.90	10.36	5.00	6.63	5.78	3.33	8.00	9.39	4.92	5.55	4.76	0.95	1.38
Cronbach's Alpha	.82	.70	.71	.81	.79	.70	.73	.84	.69	.78	.75	-	-

Note. N=187. The correlation is significant at *p < .05; **p < .01; ***p < .001. SOP – Self-oriented perfectionism; SPP – Socially prescribed perfectionism; AA – Academic achievement; PAA – Perceived academic achievement; Gender was coded 0 = male, 1 = female.

To investigate the unique relationships that perfectionism has with each test-related emotion, six hierarchical regression analyses were conducted. We intended to explain the variation of the test-related emotions, depending on the level of perfectionism, while controlling for academic achievement and gender. We removed *enjoyment*, *shame* and *relief* from the regression analysis, because of lack of correlations. The most research proved that real and perceived academic achievement is a good predictor of students' emotions. Therefore, we introduced perceived academic achievement (PAA) as control variable in our hierarchical regression models. We also entered gender as control variable since other papers presented gender differences in anger, anxiety and hopelessness (e.g. Pekrun *et al.*, 2011). Thus, for each of the six regression analyses, two hierarchical stages were conducted, with each emotion as dependent variable. PAA and gender was entered at step 1, to control these variables. The two forms of perfectionism were added at step 2. In Table 2 and Table 3 are presented the result of the hierarchical regression analyses.

Table 2. Summary of regression analysis for variables predicting **hope, pride, and anger**, while controlling for PAA and gender

Steps and predictors	Hope				Pride				Anger			
	R ²	Δ R ²	β	sr	R ²	Δ R ²	β	sr	R ²	Δ R ²	β	sr
Step 1 (Control variables)	.131				.177	.177			.093			
PAA			.31***	.29			.33***	.31			.10	
Gender (female)			.10	.09			.15*	.13			.26**	
Step 2	.223	.091***			.304	.127***			.242	.149***		
PAA			.21**	.19			.22**	.20			-.02	-.02
Gender (female)			.04	.04			.08	.07			.18*	.16
SOP			.37***	.25			.41***	.27			.50***	.46
SPP			-.07	-.06			-.04	-.03			-.13	-.09

Note. N=187. The correlation is significant at *p < .05; **p < .01; ***p < .001. SOP – Self-oriented perfectionism; SPP – Socially prescribed perfectionism; PAA – Perceived academic achievement. Gender was coded 0 = male, 1 = female; sr = semipartial correlation. The significance levels of the semipartial correlation are the same as those of the corresponding standardized regression coefficients β.

Table 3. Regression analysis for variables predicting **anxiety, guilt, and hopelessness**, while controlling for PAA and gender

Steps and predictors	Anxiety				Guilt				Hopelessness				
	R ²	Δ R ²	β	sr	R ²	Δ R ²	β	sr	R ²	Δ R ²	β	sr	
Step 1 (Control variables)	.236				.102	.102			Step 1 (Control variables)	.071			
PAA			.21**	.20			.16*	.15	PAA			-.20**	-.19
Gender (female)			.36***	.33			.22**	.20	Gender (female)			-.11	-.10
Step 2	.482	.246***			.300	.198***			Step 2	.165	.094***		
PAA			.06	.05			.03	.03	PAA			-.24**	-.22
Gender (female)			.27***	.25			.13	.12	Gender (female)			-.13	-.12
SOP			.53***	.36			.48***	.32	-			-	-
SPP			-.01	.00			.01	.00	SPP			.31***	.30

As can be seen in Tables 2 and 3, hope and pride experienced in school evaluation situations were significantly predicted by SOP and by PAA, while test-related anger and anxiety were significantly predicted by SOP and gender. Guilt was significantly associated only with self-oriented perfectionism, when the influence of other variables has been controlled. Unexpectedly, the socially prescribed perfectionism was positively associated only with hopelessness and was not related to anxiety and anger.

7. Discussions and Conclusions

In this paper we examined a sample of high school students in a correlational design, in order to find out the individual contribution that the self-oriented and socially prescribed perfectionism has in explaining variation of some academic emotions. Compared to other researches that have investigated the relationship between perfectionism and emotions, this study was focused on a specific category of emotions, namely those associated with school evaluative contexts. The results of the present research support our hypotheses only partially. Thus, it was found indeed that self-oriented perfectionism is significantly associated with both positive and negative test-related emotions, if the *academic achievement* and *gender* are controlled for. The student with high level of academic achievement and high self-oriented perfectionism reported more test-related hope and pride, regardless of gender. As expected,

the perfectionist's high standards were associated with hope of success. Moreover, high standards associated with perceived academic achievement and with anticipated success predicted pride as feeling of accomplishment and satisfaction. Concerning test-associated anger, anxiety, and guilt, results of our research denoted a strong positive relationship between these academic emotions and the self-oriented perfectionism, regardless academic achievement. Setting high standards and striving for performance can be beneficial for motivation, hope and pride, but at the same time it puts pressure on the student, generating anger, anxiety or guilt. The data of regression analysis indicated also a significant association of anger and anxiety with female students: higher perfectionist female reported higher level of anger and anxiety, regardless of academic achievement. These findings are consistent with those reported by Hewitt & Flett (1991) on the association between perfectionism, trait-anxiety and anger, but also with those reported by Pekrun *et al.* (2011) on gender difference in academic anxiety and anger.

The supposed relationship between socially prescribed perfectionism and negative emotions, when overlap of the variables was controlled, was not supported by our results. Socially prescribed perfectionism is not correlated with anger, anxiety, shame and guilt, but only with hopelessness. Although researchers have associated socially prescribed perfectionism with poor adjustment, it does not mean that the socially perfectionists are experiencing all the negative emotions. It is possible that the socially perfectionist students do not reported anxiety, or anger, or guilt, because they have an external locus of control, which does not put directly pressure on them and therefore do not produce activating emotions, but rather deactivating emotion, such as hopelessness (see Hewitt & Flett, 1991).

Finally, this paper proved some empirical data concerning the individual differences in perfectionism in high school students and the relationship of this psychological variable with self-reported academic emotion related to school tests or examinations. Distinguish between adaptive and maladaptive forms of students' perfectionism and knowledge of their effects on emotions, motivation, and performance is a major issue in education.

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