

Research article

PERSONALITY TRAITS AS PREDICTORS OF PERFECTIONISM

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Abstract. *The aim of this study was to explore the role of personality traits as predictors of perfectionism and to determine the existence of gender differences in the ways perfectionism is manifested. The study was conducted on 302 respondents aged 18 to 57. The Perfectionism Inventory scale (PI) used to measure perfectionism assesses lower-order perfectionism facets: Concern Over Mistakes, High Standards for Others, Need for Approval, Organization, Perceived Parental Pressure, Planfulness, Rumination, and Striving for Excellence; and three higher-order facets: Conscientious Perfectionism, Self-Evaluative Perfectionism and Perfectionism Inventory Composite. The Big Five Inventory (BFI), based on the Big Five model of personality, was used for the evaluation of personality traits: Extraversion, Neuroticism, Conscientiousness, Agreeableness and Openness to experience. In determining gender differences, the t-test was used. Men scored higher than women on Organization, Planfulness, and Conscientious Perfectionism, whereas women scored higher than men on Perceived Parental Pressure. Three multiple regression analyses were conducted, one for each of the tested criterion variables, to test the significance of predictors of perfectionism. Predictor variables were the five dimensions of personality traits, and the criterion variables were the dimensions of higher-order perfectionism. All three tested models have statistical significance, and the sum of the predictors, made up of basic personality traits, accounts for one-fifth to one-third of the variance in the criterion measures of perfectionism. Almost all personality traits are shown to be significant predictors of perfectionism, with the exception of Conscientiousness, which is not a predictor of Self-Evaluative Perfectionism. Based on the results, it can be concluded that perfectionists generally keep to themselves, are less tolerant towards others, often worry, are sensitive to their own actions as well as those of others, but also open to new experiences. The obtained results contribute to a better understanding of the social adaptation and functioning of young adults, including young athletes.*

Key words: *mechanical characteristics, vertical jump, kinematic, accelerometer.*

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INTRODUCTION

Perfectionism is a personality trait characterized by a person's striving for flawlessness and setting high performance standards, accompanied by critical self-evaluations and concerns regarding others' evaluations (Stoeber & Childs, 2010; Frost, Marten, Lahart, & Rosenblate, 1990). Perfectionists are often described as pessimistic individuals prone to exaggeration and excessive self-criticism (Slaney, Rice, & Ashby, 2002).

The presence of perfectionism in a single domain of life does not necessarily entail the existence of perfectionism in other domains, with the exception of extreme perfectionists who strive to be perfect in every aspect of their life (Stoeber & Stoeber, 2009). Rhéaume et al. (Rhéaume, Freeston, & Ladouceur, 1994), created a scale for measuring perfectionism in various aspects of life: work, bodily hygiene, studies, physical appearance, social relationships, presentation of documents, spelling, dress, way of speaking, romantic relationships, eating habits, health, domestic chores (cleanliness), time management (punctuality), correspondence/mail, leisure activities, oral presentations, sports, investments/purchases, orderliness, children's education, repairs (home handyman, DIY), etc. People are most commonly perfectionism-oriented towards work (Stoeber & Stoeber, 2009; Slaney & Ashby, 1996), then towards studies, bodily hygiene, spelling, and presentation of documents (Stoeber & Stoeber, 2009). Moreover, there is a greater correlation between social relationships and perfectionism in a student sample than in a random internet sample. However, the random internet sample scored higher on time management than the student population (Stoeber & Stoeber, 2009), which indicates that people belonging to different social groups value different domains of life differently, which is why perfectionistic tendencies are more present in some domains rather than others.

Perfectionism has been studied for many decades, and authors most frequently dealt with two major problems – whether perfectionism is a maladaptive or an adaptive trait, and whether it should be studied as a one-dimensional construct or as a complex multidimensional psychological trait. Some researchers view perfectionism as a maladaptive trait, stating that excessive self-criticism, a trait common in perfectionists, leads to depressive states, or even suicidal ideation (Blatt, 1995). Perfectionism has been associated with a number of psychological disorders, hence its traits are often measured via items and scales primarily constructed to measure various psychological disorders. For instance, Burns (1980), author of the Perfectionism scale, relied on the Dysfunctional Attitudes scale as a primary measure of perfectionism, in order to assess a set of self-deprecating attitudes usually present in individuals that suffer from clinical depression and anxiety. Alongside Burns, a similar approach to measuring perfectionism was adopted by Frost et al. (1990) who focused on items primarily related to eating disorders (Garner, Olmstead, & Polivy, 1983) and the obsessive-compulsive disorder (Hodgson & Rachman, 1977). Even though the instruments mentioned above were based on the study of perfectionism as a negative trait, the results of the conducted studies, which included those scales, point to the different nature of this construct. Results of those studies show that perfectionism has positive correlations with different indicators of good mental health (Frost, Heimberg, Holt, Mattia, & Neubauer, 1993; Rice, Ashby, & Slaney, 1998). This brought about a change in the initial attitude towards perfectionism, which was previously considered to be a maladaptive trait. Accepting the view of perfectionism as an adaptive trait, some authors began to view the presence of high personal standards as an indicator of good mental health which indubitably contributes to personal development (e.g.

Adler, 1956). However, some psychoanalysts adamantly opposed this view (e.g. Horney, 1951).

Hamachek (1978) united the two opposing views pointing out the dual nature of perfectionism, which is dependent on the way it is manifested. Hamachek (1978) argued that perfectionism is a complex phenomenon that can be manifested as *normal (adaptive) perfectionism* and as *neurotic (maladaptive) perfectionism*. This gave birth to the idea of the complexity and multidimensionality of perfectionism that was accepted by many authors afterwards. Frost et al. (1990) view perfectionism as a multidimensional trait, and they determined six basic factors of perfectionism: Doubts about Actions, Concern over Mistakes, High Personal Standards, High Parental Expectations, Parental Criticism, and Organization.

In the studies that followed, researchers adopted the idea that perfectionism consists of two main factors – positive and negative. “Positive” (adaptive) perfectionists tend to set realistic standards for themselves, and they derive pleasure from their hard work, whereas “negative” (maladaptive) perfectionists set unattainable goals and they hold the belief that they could have performed the task better (Hamachek, 1978). These two aspects are not at the opposing ends of a continuum, rather they represent two different and independent factors (Stumpf & Parker, 2000). Hewitt & Flett (1991) presented three dimensions of perfectionism, believing that all three dimensions can be both adaptive as well as maladaptive: *Self-Oriented Perfectionism*, *Other-Oriented Perfectionism*, and *Socially Prescribed Perfectionism*. *Self-oriented perfectionists* set high standards according to which they evaluate their own work. On the other hand, *other-oriented perfectionists* set unrealistic standards for other people that are important to them. Finally, *socially prescribed perfectionists* believe that other people have unrealistic expectations of them.

According to Hill et al. (2004), perfectionism can be observed through eight dimensions: *Concern Over Mistakes* (tendency to experience anxiety or stress after making a mistake), *High Standards for Others* (tendency to demand that others meet your perfectionist expectations), *Need for Approval* (tendency to seek approval from others and sensitivity to criticism), *Organization* (tendency towards order and tidiness), *Perceived Parental Pressure* (tendency to feel the need to perform a task perfectly in order to gain the parents’ trust), *Planfulness* (tendency to plan and contemplate on decisions ahead of time), *Rumination* (tendency to obsessively think about mistakes made in the past, and even more about the causes and possible consequences) and *Striving for Excellence* (tendency to achieve perfect results and to set high standards).

Perfectionism in sport

In the sport domain, perfectionism is usually not considered a maladaptive phenomenon, but a personality trait that leads to enhancing sport performance (Stoll, Lau, & Stoeber, 2008). In addition to better understanding the role of perfectionism in sports, Stoeber (2014) considered perfectionism in sport as a “double-edged sword” that may have benefits, but can also lead to some risks. A leading author in the field (Stoeber, 2014) emphasizes a few problems that should be addressed in future research: are there differences between perfectionism in sport and perfectionism in exercise, how perfectionism affects athletes’ both individual objective performance and whole athletic team performance, and how perfectionism affects athlete-coach relationships.

Generally, higher levels of perfectionism can be associated with both higher levels of stress and its negative consequences (Childs & Stoeber, 2012 according to Crocker, Gaudreau, Mosewich, & Kljajic, 2014), which is an important issue hence stressful situations are common in sport. But, in the domain of sport striving for perfection was found not to be in relation to anxiety (Stoeber, Otto, Pescheck, Becker, & Stoll, 2007; Hall, Kerr, & Matthews, 1998) which indicated that striving for perfection in sports is not necessarily a maladaptive trait. Results of some other studies, in which perfectionism has shown to have positive relations with some positive psychological constructs, also manifest its adaptive nature. "Healthy" perfectionists show lower levels of burnout (Gotwals, 2011), and development of healthy perfectionist orientations in youth athletes is correlated with exposure to heightened authoritative parenting (Sapieja & Holt, 2011). Also, perfectionism and goal orientations are correlated (task orientation is positively correlated with an adaptive profile of perfectionism, but ego orientation is positively associated with a maladaptive profile of perfectionism) (Dunn, Dunn, & Syrotuik, 2002), as well as perfectionism and self-esteem (Gotwals, Dunn, & Wayment, 2003). Striving for perfection may be a protective factor to vulnerability to doping (Madigan, Stoeber, & Passfield, 2016) and it is in negative correlation with depressive symptoms (Stoeber & Rambow, 2007). As expected, higher levels of competition in sport are associated with higher levels of perfectionism (Rasquinha, Dunn, & Dunn, 2014). When it comes to gender differences in perfectionism in the sport domain, male athletes generally tend to have higher perfectionist tendencies than female athletes (Dunn, Gotwals, & Dunn, 2005).

Personality traits

One of the most empirically diverse theoretical frameworks, on which a substantial nomological network in the study of personality is based, is the Big Five model, which consists of five dimensions of personality: Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness to Experience.

Extraverted individuals are sociable, whereas introverted ones are quiet and reserved (John, Naumann, & Soto, 2008). Extraversion is characterized by openness, assertiveness and high levels of energy (John, Donahue, & Kentle, 1991). Individuals who score high on Extraversion are more open, persistent, talkative and sociable than those who score lower on Extraversion, who are in turn shy, quiet and withdrawn (Larsen & Buss, 2008). Extraversion is associated with the values of achievement and hedonism (Roccas, Sagiv, Schwartz, & Knafo, 2002), as well as with the pursuit of an exciting lifestyle (Roberts & Robin, 2000).

Agreeable individuals are cooperative and pleasant, rather than unpleasant (John et al., 2008). Agreeableness is characterized by benevolence and trust. It can be viewed as a combination of friendliness and conformity (John et al., 1991). Individuals who score high on this dimension are warm, empathic and honest, whereas low scorers are unkind, often rude, and sometimes even cruel (Larsen & Buss, 2008). Agreeableness is associated with harmonious family relations, good partner relations (Roberts & Robins, 2000), and with prosocial values as well (Haslam, Whelan, & Bastian, 2009).

Conscientiousness is characterized by tidiness, responsibility and reliability; hence this trait is sometimes referred to as reliability (John et al., 1991). Conscientiousness individuals are hard-working, disciplined, pedantic, and they dedicate much of their time

to organization. These individuals are intrinsically motivated, and they invest a lot of their time and effort into succeeding in what they are doing (Larsen & Buss, 2008). Conscientiousness is associated with achievement goals (Costa & McCrae, 1988), as well as interpersonal relationship goals (Roberts, O'Donnell, & Robins, 2004). Therefore, it can be said that conscientious individuals are goal-oriented, task-oriented, as well as reliable and punctual (Larsen & Buss, 2008).

Neuroticism is characterized by nervousness and it is a direct opposite of emotional stability (John et al., 1991). Neurotic individuals are prone to anxiety, depression and irritation (John et al., 2008). Individuals who score high on Neuroticism are insecure and prone to mood swings, whereas emotionally stable individuals are calmer, more relaxed and more stable (Larsen & Buss, 2008). Furthermore, scoring high on Neuroticism points to suggestibility, lack of persistence when it comes to obstacles, sluggishness, lower verbal fluency, and rigidity. Also classified as characteristics of Neuroticism are sense of inferiority, nervousness, avoiding effort, dissatisfaction, sensitivity, moodiness and being easily offended (Fulgosi, 1997). On the other hand, emotional stability refers more to the strategies one uses to overcome stress and different obstacles in life (Larsen & Buss, 2008). Emotionally stable individuals tend not to get upset unless they are faced with what is for them personally a very powerful stressor. Only in the cases of long-term and powerful stress do emotionally stable individuals express symptoms of neurosis (Smederevac & Mitrović, 2006).

Openness to experience is characterized by originality, curiosity and ingenuity. This factor is sometimes referred to as Culture, due to its emphasis on intellect and independence (John et al., 1991). Individuals that are open to experience have a variety of interests and a refined taste in art and beauty (John et al., 2008). Individuals who score high on this dimension are creative, imaginative, and since they have a wide array of interests, they love to explore the unknown, whereas low scorers are conventional in their appearance and behaviour, tend to have narrow interest, are prone to conservative attitudes, and prefer the familiar to the unknown (Larsen & Buss, 2008). Openness to experience is often associated with autonomy (Roccas et al., 2002).

The Relationship between Perfectionism and Personality Traits

Even though perfectionism is often studied as a distinct personality trait (Stoeber & Childs, 2010), it is a construct which is often included in the assessment of other personality traits and it is, more or less, directly described in different personality models. Cattell (1950) describes perfectionism as one of the 16 primary personality factors. Individuals who score low on the Perfectionism scale (Q3) on Cattell's Sixteen Personality Factor (16PF) questionnaire, are described as people who tolerate disorder, and are flexible, whereas high scorers are described as those exceedingly disciplined who aim to achieve perfect results (Cattell, Cattell, & Cattell, 1999). In the Big Five model, perfectionism is described as an extreme manifestation of Conscientiousness, and as closely related to Neuroticism, especially in situations when the person fails at fulfilling their own highly set standards (Costa & McCrae, 1988). Even though Eysenck (1990) did not recognize perfectionism as a distinct trait in his personality model, Flett et al. (Flett, Hewitt, & Dyck, 1989) found that perfectionism is in high correlation with the Neuroticism scale in the Eysenck's personality questionnaire. That correlation shows that

highly perfectionist individuals fear negative evaluations, possess a powerful need for approval from their environment, as well as that these individuals show signs of emotional instability (Flett, Hewitt, Blankstein, & O'Brien, 1991). In general, literature shows that, out of all the personality traits, Neuroticism is the most significant predictor of perfectionism (Stoeber, & Stoeber, 2009; Khodarahimi, 2010; Flett et al., 1989).

Several dimensions of perfectionism from the model created by Frost et al. (Frost et al., 1990), primarily high standards and a preference for order and organization, are related to Conscientiousness, particularly its two facets: striving for achievement and self-discipline. Stoeber & Stoeber (2009) confirmed this correlation and added that Conscientiousness is related to self-directed perfectionism. Conscientiousness was also proven to be a significant predictor of perfectionism in a longitudinal study. However, Conscientiousness was not shown to have a significant correlation with perfectionism in an Iranian sample (Khodarahimi, 2010), hence we can assume that these correlations are culturally dependent. The relationships between Extraversion, Openness to Experience and perfectionism are not as clear yet as the relationships between perfectionism and the two personality traits mentioned above. In literature, it is noted that Extraversion and Openness to experience usually do not show any significant correlation with perfectionism (Navarez, 2011), and even in the cases when they do, that correlation is typically weak and negative. Therefore, the relationship between these constructs is merely based on assumptions. It can be expected that the individuals who score high on perfectionism will be less open to others, as well as to new ideas, experiences and activities, out of fear of making a mistake. This is because perfectionists prefer routine patterns of behaviour and novelty, and uncertainty could make them anxious.

Nevertheless, when a distinction is made between adaptive (a person sets high personal standards and succeeds in achieving them) and maladaptive perfectionism (a person sets high personal standards according to which they value their personal achievements, but those standards are unattainable to them, and so they become a source of frustration and dissatisfaction (Gilman & Ashby, 2003), it is easier to elaborate on the relationship between Extraversion and perfectionism. In that case, Extraversion is, alongside Conscientiousness, a significant predictor of adaptive perfectionism, which means that Extraversion may be manifested in perfectionists, but only if we consider their perfectionism as adaptive.

Regarding the relationship between perfectionism and Agreeableness, the results of the studies mostly point to a negative correlation, which can be explained by perfectionist unrealistic expectations of others, and their highly set demands (Habke & Flynn, 2002).

When it comes to the gender differences in the way perfectionism is manifested, the results of the studies mostly show that there are no gender differences. Khodarahimi (2010), Stoeber & Stoeber (2009) and Navarez (2011) have concluded that perfectionism is equally present in both men and women in the general population. Childs & Stoeber (2012) confirmed this finding in the business context. However, Hewitt & Flett (1991) reached different results, and they concluded that perfectionism is more present in men, but only in the case of Other-Oriented Perfectionism. Such findings demand further research into gender differences in how perfectionism is manifested, especially its individual aspects.

Aims and objectives

Even though a great number of studies has already documented the relationship between personality traits and perfectionism, the results of those studies have not always been consistent. Therefore, this study was conducted in order to confirm the nature of the above-mentioned relationship. In addition, the majority of the studies were conducted in foreign countries, hence another purpose of this study is to shed light on the relationship between perfectionism and personality traits in the Serbian population. The sample is general, but it mostly consists of the student population, because perfectionism is most widely manifested in young people during the period when they start their independent lives. A study conducted in a transition country, on a sample of a vulnerable group of young people in search of their identities, can contribute to the better understanding of the way these individuals function and adapt. The general aim of this study was to explore the relationship between personality traits and perfectionism in Serbia, but the study also delves into gender differences in the way different types of perfectionism are manifested. Although done on the general population, obtained results of this study can help sports professionals better understand perfectionism among athletes and its relationship with personality traits.

METHODS

Instruments

Questionnaire for measuring perfectionism; The questionnaire used to measure perfectionism was the Perfectionism Inventory scale (Perfectionism Inventory, PI; Hill, Huelsman, Furr, Kibler, Vicente, & Kennedy, 2004). It consists of eight scales measuring: Concern Over Mistakes ($\alpha = 0.86$), High Standards for Others ($\alpha = 0.83$), Need for Approval ($\alpha = 0.87$), Organization ($\alpha = 0.91$), Perceived Parental Pressure ($\alpha = 0.88$), Planfulness ($\alpha = 0.86$), Rumination ($\alpha = 0.87$), and Striving for Excellence ($\alpha = 0.85$). It can also be used to measure two higher-order perfectionism facets: Conscientious Perfectionism (High Standards for Others + Organization + Planfulness + Striving for Excellence; $\alpha = 0.75$) and Self-Evaluative Perfectionism (Concern Over Mistakes + Need for Approval + Perceived Parental Pressure + Rumination; $\alpha = 0.79$), as well as Perfectionism Inventory Composite, by calculating the sum of all the PI scales. The questionnaire is made up of 59 items, which are evaluated on a five-point scale of agreement.

Inventory for the evaluation of personality traits; The Big Five Inventory (Big Five Inventory, BFI; John & Srivastava, 1999, adapted by Trogrlić and Vasić in Trogrlić, 2009), which relies on the Big Five model, was used to assess personality traits: Extraversion ($\alpha = 0.81$), Neuroticism ($\alpha = 0.81$), Conscientiousness ($\alpha = 0.83$), Agreeableness ($\alpha = 0.75$), and Openness to Experience ($\alpha = 0.82$). BFI consists of 44 items and uses a five-point scale of agreement.

Participants

A total of 302 respondents aged 18 to 57 years ($AS = 26.98$) participated in this study. The majority of the respondents were female (Table 1). The sample mostly consists of the student population; hence the majority of the respondents are also unemployed students.

Table 1 Sample description.

Characteristics	N (%)
Number of respondents	302
Gender	
M	147 (48,7%)
F	155 (51,3%)
Education of respondents	
Primary and secondary school	95 (31,5%)
Studies in progress	180 (59,6%)
Higher or higher education	27 (8,9%)
Working status of respondents	
Employed	82 (27,2%)
Occasionally employed	46 (15,2%)
Unemployed	174 (57,6%)

Procedure

The study was conducted from March to May 2017 on the territory of Republic of Serbia via an online questionnaire.

Statistical analysis

In determining the significance of the predictors of perfectionism, three multiple regression analyses were conducted, one for each of the tested criterion variable. The predictor variables were the Big Five personality traits (Extraversion, Neuroticism, Conscientiousness, Agreeableness and Openness to experience), and the criterion variables were the dimensions of higher-order perfectionism (Conscientious Perfectionism, Self-Evaluative Perfectionism and Perfectionism Inventory Composite). The gender differences in the way perfectionism is manifested were examined via a *t*-test, in which the dependent variables were all of the lower-order perfectionism facets (Concern Over Mistakes, High Standards for Others, Need for Approval, Organization, Perceived Parental Pressure, Planfulness, Rumination, and Striving for Excellence), and three higher-order ones (Conscientious Perfectionism, Self-Evaluative Perfectionism and Perfectionism Inventory Composite). The independent variable was gender (1 = male, 2 = female).

RESULTS

Table 2 shows the correlations between different dimensions of perfectionism, the arithmetic mean, the standard deviation and the results of the *t*-test used to determine the gender differences in the perfectionism scales. The results of the correlation analysis indicate that the intercorrelations between the dimensions of perfectionism are generally high,

especially the correlations between dimensions that belong to the same group. The registered gender differences point that the facets Organization (M(m) = 30.33, M(f) = 28.83), Planfulness (M(m) = 25.86, M(f) = 23.78) and Conscientious Perfectionism (M(m) = 96.86, M(f) = 91.68), are more expressed in men, whereas Perceived Parental Pressure (M(m) = 19.59, M(f) = 22.39) is more expressed in women.

Table 2 Means, Standard Deviations, gender differences and correlations among Scales.

Scale	No of items	1	2	3	4	5	6	7	8	9	10	11
1. Concern over mistakes	8	1										
2. High Standards for Others	7	0.49**	1									
3. Need for Approval	8	0.78**	0.39**	1								
4. Organization	8	0.17**	0.29**	0.06	1							
5. Perceived Parental Pressure	8	0.35**	0.15*	0.32**	-0.01	1						
6. Planfulness	7	0.42**	0.42**	0.40**	0.47**	0.10	1					
7. Rumination	7	0.79**	0.42**	0.75**	0.13*	0.43**	0.42**	1				
8. Striving for Excellence	6	0.59**	0.45**	0.47****	0.40**	0.33**	0.45**	0.64**	1			
9. Conscientious Perfectionism		0.55**	0.72**	0.43**	0.73**	0.19**	0.77**	0.53**	0.77**	1		
10. Self-Evaluative Perfectionism		0.87**	0.43**	0.84**	0.10	0.69**	0.39**	0.89**	0.61**	0.51**	1	
11. Perfectionism Inventory Composite		0.85**	0.63**	0.77**	0.42**	0.55**	0.63**	0.85**	0.78**	0.82**	0.91**	1
Scale <i>M</i>		19.28	20.37	22.05	29.56	21.03	24.79	20.32	19.48	94.21	82.68	176.88
Scale <i>SD</i>		7.34	6.18	7.19	6.52	9.53	5.54	7.06	5.98	18.09	25.24	37.75
Gender (<i>t</i>)		-0.12	1.49	0.08	2.01*	-2.58**	3.32**	-0.49	0.77	2.51**	-1.12	0.44

Legend: Scale *M* – scale mean; Scale *SD* – scale standard deviation; * $p < 0.05$; ** $p < 0.01$.

In the Tables 3, 4 and 5 the main results of the multiple regression analyses are presented. Basic dimensions of personality are the predictor variables, and Conscientious Perfectionism (Table 3), Self-Evaluative Perfectionism (Table 4) and Perfectionism Inventory Composite (Table 5) are the criterion variables. All three models that were tested are of a statistical significance, but the personality traits explain the greatest proportion of the variance for the criterion variable tested first – Conscientious Perfectionism. Perfectionism Inventory Composite explains 21% of its variance, Self-Evaluative Perfectionism 22 %, and Conscientious Perfectionism 34 %.

Table 3 Proportions of variance (R^2), their change (ΔR^2) and the statistical significance of this change (ΔF) (criterion: Conscientious Perfectionism).

Model	R^2	ΔR^2	ΔF
Basic dimensions of personality	0,33	0,34	29,98

Note: $p(\Delta F) < 0,01$.

Table 4 Proportions of variance (R^2), their change (ΔR^2) and the statistical significance of this change (ΔF) (criterion: Self-Evaluative Perfectionism).

Model	R^2	ΔR^2	ΔF
Basic dimensions of personality	0,24	0,22	18,38

Not: $p(\Delta F) < 0,01$.**Table 5** Proportions of variance (R^2), their change (ΔR^2) and the statistical significance of this change (ΔF) (criterion: Perfectionism Inventory Composite).

Model	R^2	ΔR^2	ΔF
Basic dimensions of personality	0,22	0,21	16,85

Not: $p(\Delta F) < 0,01$.

Tables 6, 7 and 8 show the partial contributions of personality traits as predictors of Conscientious Perfectionism (Table 6), Self-Evaluative Perfectionism (Table 7) and Perfectionism Inventory Composite (Table 8). Almost all five personality traits are stable predictors in all models. The exception is Conscientiousness as a predictor of Self-Evaluative Perfectionism. Traits that have a positive predictive value in predicting all three criterion variables are Conscientiousness, Neuroticism and Openness to experience. Out of the three traits, the most significant contributing predictor of Conscientious Perfectionism and Perfectionism Inventory Composite is Conscientiousness, and the most significant contributing predictor of Self-Evaluative Perfectionism is Neuroticism. Extraversion and Agreeableness are shown to have a negative partial contribution. Agreeableness is a more significant negative predictor of Conscientious Perfectionism than Extraversion. On the other hand, Extraversion is a more significant negative predictor of the criterion variable tested second – Self-Evaluative Perfectionism, than Agreeableness. When it comes to Perfectionism Inventory Composite, negative predictors are shown to be of almost equal amount.

Table 6 Partial contributions to personality traits in predicting criteria Conscientious Perfectionism.

Predictor	B
Extraversion	-0,11*
Neuroticism	0,13**
Conscientiousness	0,59**
Agreeableness	-0,26**
Openness to experience	0,17**

Note: * $p < 0,05$; ** $p < 0,01$.**Table 7** Partial contributions to personality traits in predicting criteria Self-Evaluative Perfectionism.

Predictor	B
Extraversion	-0,28**
Neuroticism	0,30**
Conscientiousness	0,06
Agreeableness	-0,19**
Openness to experience	0,16**

Note: * $p < 0,05$; ** $p < 0,01$.

Table 8 Partial contributions to personality traits in predicting criteria Perfectionism Inventory Composite.

Predictor	B
Extraversion	-0,24**
Neuroticism	0,27**
Conscientiousness	0,32**
Agreeableness	-0,25**
Openness to experience	0,19**

Note: * $p < 0,05$; ** $p < 0,01$.

DISCUSSION

The aim of this study was to explore the relationship between perfectionism and personality traits on a Serbian sample. Previous studies were conducted on foreign territories; hence this study was conducted to test those findings on the Serbian population living in a transition country. The sample primarily consists of students, young people in search of their identities.

When it comes to gender differences, men scored higher than women on Organization, Planfulness and Conscientious Perfectionism, whereas women scored higher than men on Perceived Parental Pressure. A greater tendency towards organization in men than in women has not been previously documented, what's more stable gender differences point to a greater tendency towards organization in women (Poropat, 2009; Costa, Terracciano, & McCrae, 2001). These findings can be a consequence of the need men feel to provide for their family, or of the idiosyncrasy of the sample in our study. Due to greater emotional sensitivity and a need to care for their family, (Poropat, 2009; Costa et al., 2001) Perceived Parental Pressure is more strongly manifested in women than in men. Further research is required in order to confirm these gender differences in the way perfectionism is manifested, and also to include other psychological traits to gain a better understanding of these findings.

In this study, basic personality traits according to the Big Five model: Extraversion, Neuroticism, Conscientiousness, Agreeableness and Openness to experience, are shown to be significant predictors of the three higher-order perfectionism facets: Conscientious Perfectionism, Self-Evaluative Perfectionism, and Perfectionism Inventory Composite. The primary results of the regression analyses show that the three models that were tested have statistical significance, and that the predictor variables, i.e. the basic personality traits, account for one-fifth to one-third of the total variance in the criterion measures of perfectionism. Almost all dimensions of personality traits are stable predictors in all the models. The exception is Conscientiousness as a predictor of Self-Evaluative Perfectionism. Traits that have a positive predictive value in predicting all three criteria are Conscientiousness, Neuroticism and Openness to experience. Extraversion and Agreeableness are shown to have a negative partial contribution. These constellations of predictors mean that the individuals who score higher on Conscientious Perfectionism and Perfectionism Inventory Composite are very conscientious, open to new experiences, emotionally unstable, less agreeable in interpersonal relations, and tend to keep to themselves. There was a slightly different constellation in the criterion measures of Self-Evaluative Perfectionism – the dimension of perfectionism that relates to

questioning oneself, concern over mistakes, rumination and perception of parental pressure. Individuals who score high on this type of perfectionism are more vulnerable, exhibit poor social adaptation, poor coping mechanisms, they keep to themselves, establish less pleasant relationships with other people, are less tolerant, but more open to new experiences. These characteristics in a given individual are not affected by the degree of exhibited Conscientiousness. Such findings generally confirm the existing empirical framework which points to stable correlations between Neuroticism, Conscientiousness and perfectionism. The only trait shown in the studies so far to be an inconsistent predictor of perfectionism was Openness to experience.

So far, literature has suggested that Neuroticism is the most significant predictor of Perfectionism, and that relationship can be interpreted as perfectionist sensitivity or deliberation on personal actions and potential mistakes (Hewitt et Flett, 1991; Flett et al., 1989; Stoeber & Stoeber, 2009; Khodarahimi, 2010). Conscientiousness is also a significant correlate of perfectionism according to the previous studies, and those correlations are interpreted as a perfectionist preference for order and discipline (Frost et al., 1990; Stoeber & Stoeber, 2009), because in order to achieve highly set standards, good organization and self-discipline is crucial. When it comes to Openness to experience, this trait has either not shown any correlation with perfectionism at all, or these correlations were quite weak and negative (Navarez, 2011). However, in our study this trait was shown to be a positive predictor of perfectionism. Perfectionists are open to new ideas and novelties, and they have a wide array of interests. Such result could be the consequence of the sample mostly consisting of the student population seeking new opportunities and life stability which requires a more open worldview. Extraversion and Agreeableness were shown to have a negative partial contribution in explaining perfectionism. The correlation between perfectionism and Extraversion has not been clear so far, and even when it was documented, it usually pointed to adaptive perfectionism (Gilman & Ashby, 2003). Our study indicates that perfectionists tend to keep to themselves, are withdrawn and quiet, which corresponds with the assumption that perfectionists like to be surrounded by familiar people and the aspect of social influence in perfectionism is sometimes problematic. Such findings have to do with Neuroticism, because perfectionists are generally more concerned with the evaluation of their actions from a new environment than a familiar one, and consequently they establish more distant relationships with people. Perfectionists generally can have problems with interpersonal relations because they set high expectations for others, which is consistent with the results that point to their lower Agreeableness.

CONCLUSION

In this paper the established gender differences indicate that Organization, Planfulness and Conscientious Perfectionism are more manifested in men than women, whereas Perceived Parental Pressure is more manifested in women than men. Furthermore, the results of the regression analyses indicated that perfectionism correlates with basic personality traits, and that perfectionists generally keep to themselves, are less tolerant of others, often concerned, sensitive to their own actions and those of others, but open to new experiences. The obtained results (not without limitations) can be interpolated to

sport-specific situations and can help coaches and sports psychologists provide more adequate selection and better career management of athletes.

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OSOBINE LIČNOSTI KAO PREDIKTORI PERFEKCIONIZMA

Cilj ovog istraživanja bio je ispitati uloge osobina ličnosti kao prediktora u odnosu na perfekcionizam i utvrditi da li postoje polne razlike u izraženosti perfekcionizma. Istraživanje je sprovedeno na 302 ispitanika, starosti od 18 do 57 godina. Uпитnik za merenje perfekcionizma sastoji se od faktora prvog reda Zabrinutost za greške, Visoki standardi za druge, Potreba za potvrđivanjem, Organizacija, Percepcija roditeljskih očekivanja, Planiranje, Preispitivanje, i Besprekornost, i tri faktora višeg reda Savesni perfekcionizam, Samovrednosni perfekcionizam i Ukupni perfekcionizam. Inventar za procenu osobina ličnosti BFI korišćen je za merenje osobina ličnosti prema modelu Velikih pet: Ekstraverzija, Neuroticizam, Savesnost, Prijatnost i Otvorenost prema iskustvu. Upotrebom t-testa registrovane su polne razlike u korist muškaraca u izraženosti Organizacije, Planiranja i Savesnog perfekcionizma, a u korist žena Percepcija roditeljskih očekivanja. U proveru značajnosti korelata perfekcionizma sprovedene su tri višestruke regresione analize, po jedna za svaki od testiranih kriterijuma. U statusu prediktorskih varijabli bili su sumacioni skorovi na dimenzijama osobina ličnosti, a kriterijumi sumacioni skorovi na dimenzijama višeg reda perfekcionizma. Sva tri testirana modela statistički su značajna, a skup prediktora, sačinjen od bazičnih osobina ličnosti, objašnjava od jedne petine do jedne trećine ukupne varijanse prostora merenja perfekcionizma. Gotovo sve osobine ličnosti su značajni prediktori perfekcionizma, izuzev Savesnosti u predviđanju Samovrednosnog perfekcionizma. Na osnovu rezultata može se zaključiti da su perfekcionista, generalno, okrenuti ka sebi, manje tolerantni prema drugim ljudima, često zabrinuti, osetljivi na lične i tuđe postupke, ali otvoreni prema novim iskustvima. Ishodovani rezultati doprinose boljem razumevanju prilagođavanja i funkcionisanja mladih, uključujući i sportiste.

Ključne reči: perfekcionizam, osobine ličnost, pol, sport.