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Personality and Coping in *League of Legends* Pro Players

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ABSTRACT

Personality has been identified as a predictor of Coping strategies in the context of traditional sport. In this study, we investigated the association between measurements of Big Five Factor and coping strategies in professional League of Legends (LOL) players. 138 people participated, aged between 16 and 37 years (M=21.24, SD=3.77), who answered the Big Five Inventory and Athletic Coping Skills Inventory-28. Correlations were made between the scores of these instruments, and regression of coping skills in personality factors. Neuroticism and Conscientiousness are associated with the use of Coping skills, which suggests that personality is a relevant variable in understanding the use of adaptative strategies to deal with adversity while playing LOL, however, other studies should be carried out in the future.

Keywords: personality; eSport; Coping.

RESUMO – Personalidade e *Coping* em jogadores profissionais de *League of Legends*

A personalidade tem sido apontada como preditora de estratégias de *Coping* no contexto do esporte tradicional. Nesse estudo, investigamos a associação entre medidas dos Cinco Grandes Fatores de personalidade e estratégias de *Coping* em jogadores profissionais de *League of Legends* (LOL). Participaram 138 pessoas, com idades entre 16 e 37 anos (M=21,24, DP=3,77), as quais responderam o *Big Five Inventory* e o *Athletic Coping Skills Inventory-28*. Foram realizadas correlações entre os escores desses instrumentos, e regressão das habilidades de *coping* nos fatores de personalidade. Neuroticismo e Conscienciosidade estão associados com o uso das habilidades de *Coping*, o que sugere que a personalidade é uma variável relevante na compreensão das estratégias adotadas para lidar com as adversidades no LOL, porém, novos estudos devem ser realizados futuramente.

Palavras-chave: personalidade; eSport; *Coping*.

RESUMEN – Personalidad y *Coping* en jugadores profesionales de *League of Legends*

La personalidad ha sido identificada como un predictor de estrategias de afrontamiento en el contexto del deporte tradicional. En este estudio, investigamos la asociación entre los cinco factores de personalidad y las estrategias de afrontamiento en jugadores profesionales de *League of Legends* (LOL). Participaron 138 personas, con edades entre 16 y 37 años (M=21,24, DT=3,77), que respondieron el Inventario *Big Five* y el Inventario de Habilidades de Afrontamiento Atlético-28. Se realizaron correlaciones entre las puntuaciones de estos instrumentos y la regresión de las habilidades de afrontamiento en los factores de personalidad. El neuroticismo y responsabilidad están asociados con el uso de habilidades de afrontamiento, lo que sugiere que la personalidad es una variable relevante para comprender el uso de estrategias para lidiar con adversidad en LOL, sin embargo, otros estudios deberían realizarse en el futuro.

Palabras clave: personalidad; eSport; *Coping*.

Nowadays, millions of people play online; however, only a small portion of this population transformed the act of "playing" into a career option related to sport. This group of players are also known as cyberathletes and are part of the world of sport. "eSport" is the abbreviation and the most used term when referring to Electronic Sports, which essentially are electronic games organized competitions. There are different genres of eSports, such as: fighting games, real-time strategy games (RTS), first-person shooter games (FPS) and MOBA (Multiplayer Online Battle Arena). MOBA games are a subgenre of real-time strategy games where, usually, two teams of five players each compete against each other and each player controls one character. In MOBA, all strategy involves the development of each team member´s skill and the team cooperation during the combats.

Launched in 2009 by Riot Games, League of Legends (LoL) is an example of a game from the MOBA

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genre. LoL is a free game with more than 100 million active players per month. In 2012, Brazil received a dedicated server for regional players. This game, as a MOBA game, consists of two teams of five players each and the objective is to destroy the enemy's territory; each match lasts between 30 and 60 minutes. In LoL, each player takes a role, or "position" inside the game with its own characteristics: TOP, stays on the top part of the map, where it can play isolated from the other players. JUNGLE, moves around all spaces in the map after the start of the game, trying to help players that start in fixed routes. MID, usually chosen with characters that possess a high level of magic attack but are weaker. AD-Carry and SUPPORT compose the bottom part of the map. AD-Carry plays focusing on the physical damage against the opponent's characters and it's helped and protected by its SUPPORT. To progress along the game, as well as knowing a variety of strategies in depth, the players need to be informed about the game´s updates.

Just as in traditional sports, the athletes´ ability to resist the pressure of the competitive situation is a fundamental attribute in eSports which has a direct effect on their performance in many ways (Coimbra et al., 2013; Park, 2000). When talking about LoL specifically, this reality is no different. The available roles in the game, apparently, make different demands regarding what characteristics are expected of those who play them. It is important to remember that roles offer different degrees of pressure to players and during different moments. For example, some roles may require a greater ability to control selective attention, showing the ability to play independently, and showing less preference for social dominance and interpersonal contact. In contrast, some roles will require the ability to divide and alternate attention and will need to show more dynamism and communication skills. In this way, it seems possible that each player's psychology characteristics can bias the way the athlete responds to the demands of the roles and the game. That is why we start from the hypothesis that a successful performance in LOL is, at least in part, explained by the individual pattern of the athlete's psychological functioning. This means that the personality may have influence over the athletes' plays and in-game decisions, therefore, reflecting on how to deal with competitive stressors and on why an athlete would prefer a certain role in the game.

The effort generated by training, added to the constantly competitive environment, are stressful events in the daily lives of traditional sports athletes (Coimbra et al., 2013; Géczi et al., 2009; Park, 2000). This aspect is no different for athletes of electronic sports (Wagner, 2006), who studies games and opponents, in addition to, in some cases, reaching 18 hours of training per day during championship seasons (Pereira & Mendes, 2014). With so many activities and the pressure to achieve good results, these athletes need tools that help them deal with stress, so that they can return to working on their performance and do not damage their health. The construct that involves the different psychological strategies to deal with these stressful events is currently understood in the literature on sport psychology as Coping. Athletes who use adaptive coping strategies, in addition to improving their skills, also enjoy the sporting experience more (Géczi et al., 2009; Nicholls & Polman, 2007).

There is an abundance of definitions and descriptions about Coping in the scientific literature, and in the production in sport psychology the perspectives of trait and process are the most notable (Antoniazzi et al., 1998; Coimbra et al., 2013; Nicholls & Polman, 2007). From the perspective of Coping as a trait, individuals are classified within stable Coping styles, usually measured by interviews and questionnaires. While in the process perspective, Coping is understood as a dynamic interaction that involves internal resources, such as beliefs and objectives, and external or situational environments. In this line, Coimbra (2011) suggests that Coping is defined as the ability to manage cognitive and behavioral efforts that are constantly changing to manage specific internal or external psychophysical demands that exceed individual resources.

It is possible to broaden the understanding of Coping in the sports or highly competitive environment as the use of behaviors and cognitive efforts that athletes make to manage internally and externally these demands generated by competitive and stressful events (Antoniazzi et al., 1998; Folkman, 2010; Géczi et al., 2009; Nicholls & Polman, 2007). This has been a subject of interest for sport psychology, both because it brings tools and possibilities for athletes to improve their quality of life and their performance in game, and because they are strategies that can be learned by athletes, increasing their options to deal with the aversive situations of competitions (Coimbra et al., 2013; Géczi, Bognár, et al., 2009; Goudas et al., 1998; Smith et al., 1995).

Coping style is defined as a latent trait of the subject. It would then not be the preference of one aspect of Coping over others, but a tendency to use a form of Coping reaction, in different intensities, in face of the stressful situation. However, coping styles are not directly linked to the presence of personality traits that predict the person to respond in a certain way. These Coping styles can show the tendency of response or action from facing a specific series of stressful events (Antoniazzi et al., 1998).

Coping strategies, unlike styles, are responses that can change from moment to moment: they reflect behaviors or thoughts used to deal with a stressor and that can be trained or adapted to different situations. Coping strategies, can be divided into two ways (Lazarus & Folkam, 1984): Coping focused on the problem, which focuses on solving problems in a planned way, that is, it seeks to solve the problem that causes suffering, using strategies such as information gathering and decision

making; second, Coping focused on emotion, which seeks to regulate negative emotion using strategies such as distance and the search for emotional support. A third Coping strategy, coping focused on meaning, was introduced into the model due to discoveries that positive emotions occur alongside negative emotions in intensely stressful periods and this Coping strategy seeks to regulate positive emotions (Folkman, 2010; Nicholls & Polman, 2007).

In the context of sport psychology, personality has been considered a central construct to help explain the individual differences between athletes and their repercussions. Personality refers to the pattern of behaviors that people present in their relationships with others in different contexts of life (work, studies, and interpersonal relationships), differentiating them from others in their dispositional way of feeling, thinking, and acting in daily life. These individual patterns of functioning tend to become more and more stable over time (Roberts & Mroczek, 2008). A reference model for personality is the "Big Five" (John & Srivastava, 1999; McCrae & John, 1992) or the Big Five Factors (CGF), which is a model that represents personality in a simpler way, being composed of five broad factors.

Studies with general population have concluded that Extraversion and Conscientiousness are the traits that best predict the focus on emotion and problem solving. In addition, Neuroticism predicts both problematic coping strategies and its focus on emotion (Allen et al., 2012; Connor-Smith & Flachsbart, 2007). This association between coping and personality traits seems corroborated even in studies involving specific populations, such as individuals with Bipolar Disorder (Souza et al., 2014) and athletes (Coimbra et al. 2013).

About the context of sports, Allen et al. (2012) reported that problem-solving coping skill was associated with Conscientiousness ($\beta=0.44$, $p<0.05$), while the avoidance-type of coping skill was associated with Neuroticism ($\beta=0.38$, $p<0.05$), openness ($\beta=-0.36$, $p<0.05$) and kindness ($\beta=-0.37$, $p<0.05$). More recently, Leszko et al. (2020) identified that Neuroticism was associated with emotion-oriented coping ($r=0.62$, $p<0.05$) while Conscientiousness with problem-oriented coping strategies ($r=0.49$, $p<0,05$).

In a study by Kaiseler et al. (2012), Neuroticism predicted the perceived intensity of the stressor and indicated less perceived control over the stressor in athletes. Neuroticism has also been associated with coping strategies aimed at emotion and avoidance. High levels of Neuroticism were also associated with the selection of less adaptive coping strategies and with the perception that these strategies were inefficient. The other four personality factors were positively associated with more adaptive coping strategies, and with the perception that these strategies were efficient, with emphasis on Conscientiousness. Furthermore, athletes with higher scores in Conscientiousness demonstrated greater perceived control over the stressor.

Within this view, it seems possible to consider that the use of different strategies to deal with stressful situations are linked to individual psychological characteristics (behavioral, affective, and cognitive) (Antoniazzi et al., 1998). Therefore, we expect that personality traits have a predictive value in the athlete's Coping skills in the LOL game. Based on this hypothesis, the present study aims to identify which personality attributes are potentially relevant to understand the coping strategy used by professional athletes of LOL. Knowing the general psychological characteristics of LOL players can contribute to thinking about why some athletes maintain greater motivation to deal with the challenges of the game, while others give up when facing stressful situations.

Method

Participants

The sample was composed of 138 Brazilian LOL players, from amateur championships ($n=31$), university championship ($n=4$), challenger circuit ($n=7$) and CBLOL ($n=24$), with 131 men. The age of the participants ranged from 16 to 37 years ($M=21.24$, $SD=3.77$, $MD=20$ years). Most respondents identified themselves as single ($n=128$), followed by those with a stable union ($n=8$) and married ($n=2$). Incomplete higher education is the most frequent education in the sample ($n=60$), followed by complete high school ($n=47$), complete College ($n=17$), incomplete high school ($n=12$), specialization and master's ($n=1$ in each category).

Participants also informed that they had played professionally for 1 to 9 years ($M=5.12$, $SD=1.71$) and dedicated between 2 and 100 hours per week to practice ($M=27.97$ hours, $SD=26.70$), which includes specific training and time studying the game. The majority ($n=35$) indicated that they occupy the Support position, followed by the Mid ($n=29$), AD-Carry ($n=27$), Top ($n=22$) and Jungle ($n=18$) positions. Some participants indicated that they did not have a main position in the game ($n=7$).

Instruments

Sociodemographic questionnaire: A questionnaire used to characterize the sample, in terms of age, sex, marital status, education background, and time of professional practice of the LOL.

Big Five Inventory – 2 (BFI-2): An instrument for measuring the five personality factors and 15 specific facets, with 3 facets for each major factor. It has 60 self-report items in which the respondents indicate how much they agree with the items on a 5-point Likert scale, ranging from strongly disagreeing to strongly agreeing. The reliability of the BFI-2, assessed by Cronbach's Alpha in three samples, obtained magnitudes

ranging from α=0.81 to α=0.90 for the factors. For its facets, the precision varied from α=0.59 to α=0.86 (Soto & John, 2017).

Athletic Coping Skills Inventory-28 (ACSI-25BR) Brazilian version: Inventory containing 25 items divided into seven subscales. Respondents must mark, on a four-point Likert scale, their perception in situations typical of training and competitions. ACSI-28 assesses the following dimensions: Dealing with Adversity, Performance under Pressure, Goals/Mental Preparation, Concentration, Free from Worry, Confidence/Motivation and Trainability. The Brazilian version obtained adequate reliability (α=0.81) (Coimbra et al., 2013).

Procedures for data collection

Participants were recruited through the research team's network of contacts. Invitations had been made through e-mail, telephone calls, promotion at sporting events and through social media. Data collection started as soon as the project was approved by an Ethics Committee of a University in the South of Brazil, under the CAAE number: 87354518.2.0000.0121.

Data analysis

Initially, we calculated the scores for each of the five factors, and for the 15 facets of personality measured with BFI-2. Then, the raw scores were calculated for each of the seven domains evaluated in the ACSI-25BR, considering the average value of the answers in the items of each domain. To verify the association between personality and Coping, a pairwise correlation was performed between the personality factors and facets of the BFI-2, with the general score of coping skills assessed in the ACSI-25BR, and with its seven domains.

Then, by using the software Stata 16 (Stata, 2015) a regression was conducted with coping skills in personality factors, through path analysis. Therefore, when modeling structural equations, we consider the standard error estimated by bootstrap, due to the small sample size. The models were estimated by maximum likelihood, and, having been asked to replicate 50 samples, an adequate amount to estimate standard errors and confidence intervals in the case in which we know little about the population (Stata, 2015). The first model considered the general score on coping skills as the dependent variable and the scores on the five personality factors as the independent ones. In the second model, the 15 personality facets were considered the predictive variables of coping skills. In the third model, the dependent variable became each of the Coping skills, while the 15 facets of personality were the independent variables.

Both in the correlational stage and in the regression models tested, it was expected that Conscientiousness and its facets were associated with the coping components indicative of the problem-oriented ability: Mental Preparation and Performance under pressure. Neuroticism and its facets were expected to be associated with coping factors indicative of emotions-oriented skills: Dealing with adversity, Free from Worry and Motivation.

Results

Descriptive analysis

When it comes to the accuracy of the personality factors assessed in the BFI-2, and the coping domains assessed with ACSI-25BR, the alpha´s coefficients proved to be acceptable, since, overall, they exceed the value of 0.60. This information appears in Table 1.

Table 1
Descriptive statistics and reliability coefficients for the studied variables

	Mean	SD	Amplitude		Reliability (α)
BFI-2					
Openness	-8.03	0.59	-1.55	1.16	0.71
Conscientiousness	-1.40	0.63	-1.66	1.51	0.67
Extraversion	7.92	0.63	-1.44	1.69	0.63
Agreeableness	5.91	0.54	-1.51	1.11	0.64
Neuroticism	1.24	0.68	-1.18	1.69	0.66
ACSI-25BR					
Mental preparation	-8.16	0.77	-1.55	1.56	0.69
Motivation	3.51	0.74	-2.11	1.17	0.60
Concentration	4.48	0.75	-1.76	1.10	0.63
Deal with adversities	9.29	0.71	-1.72	1.33	0.59
Performance under pressure	-6.59	0.84	-1.56	1.36	0.64
Worry-free	-7.40	0.74	-1.08	1.84	0.72
Trainability	-2.02	0.65	-1.82	0.71	0.71
Total	-0.01	0.46	-1.47	1.04	0.69

Correlational step

The general coping factor was found to be significantly correlated with the five personality factors. There was a highlight in the associations between the general score in coping with Neuroticism and Conscientiousness. Neuroticism was shown to be correlated with the domains Dealing with adversity, Motivation and Free of worries, while Conscientiousness was associated with Mental preparation and Performance under pressure.

In contrast, openness is the personality trait less related to coping. The same can be said in relation to the Amiability and Extraversion traits, which had a low association with the general score in coping. In these cases, the degree of association obtained suggests that some specific dimension of coping may be associated with the trait. For example, Amiability seems to be associated with Coping with adversity, while Extraversion with Mental Preparation and Performance under pressure. More information is shown in Table 2.

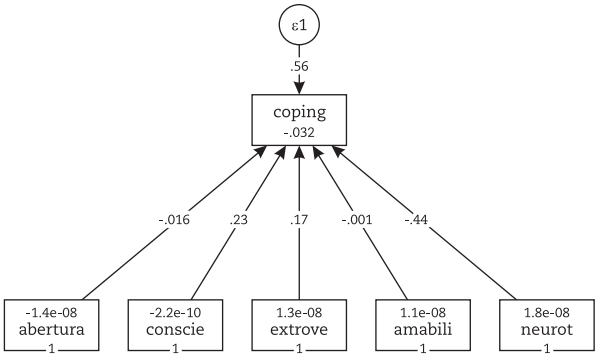
Table 2
Correlation between personality traits (BFI-2) and coping habilities (ACSI-25BR)

Personality trait	Habilidades de *coping*							
	Mental preparation	Motivation	Concentration	Deal with adversities	Performance under pressure	Worry-free	Trainability	*Coping* Total
Agreeableness	0.20*	**0.39***	0.09	**0.35***	0.11	0.15	0.16	**0.31***
Conscientiousness	**0.32***	**0.49***	**0.35***	**0.40***	**0.21***	0.13	0.13	**0.49***
Extraversion	**0.32***	**0.28***	0.18*	**0.26***	**0.31***	0.07	0.10	**0.38***
Neuroticism	**-0.19***	**-0.54***	**-0.28***	**-0.58***	**-0.27***	**-0.43***	-0.12	**-0.59***
Openness	0.20*	0.05	0.08	0.13	0.02	0.09	0.05	**0.20***

Regression of coping dimensions in personality factors

The model in which the dependent variable was the general score of Coping skills and the independent ones the five personality factors (RMSEA=0.00; $\chi^2(1)=0.25$, $p>0.05$; CFI=1.00M TLI=1.05, SRMR=0.00) revealed that Neuroticism (B=-0.29, SE Bootstrap=0.05, $p<0.5$, [95% CI=-0.39 -0.19]), Conscientiousness (B=0.16, SE Bootstrap=0.06, $p<0.05$ [95% CI=0.04 - 0.29]) and Extraversion (B=0.12, SE Bootstrap=0.05, $p<0.05$ [95% CI=0.01 - 0.24]) are good predictors of psychological coping skills. This model explains 43% of the variance. The diagram with the paths of this model can be seen in Figure 1.

Figure 1
Path Analysis between personality traits and general coping score



Note: B coefficients shown are all standardized ($p<0,05$). Abertura=Openness, Conscie=Conscientiousness, Extrove=Extraversion, Amabili=Agreeableaness, Neurot=Neuroticism

In the model in which the 15 facets of personality were considered to be predictors of the general coping score, it was identified that Creativity (B=0.32, β=1, SE Bootstrap=0.05, $p<0.05$ [95% CI=0.21 - 0.33]), Anxiety

(B=-0.24, β=-0.35, SE Bootstrap=0.06, p<0.05 [95% CI=-0.36 -0.12]) and Respect (B=0.11, β=0.05, SE Bootstrap=0.05, p<0.05 [95% CI=0.01 - 0.21]), were the only significant variables. This model explains 53% of the variance.

When the Coping skills became the dependent variable, the Productivity personality facet was able to predict scores in Mental Preparation (B=0.34, β=0.35, SE Bootstrap=0.10, p<0.05 [95% CI=0.13 - 0.55]), explaining 22% of the variance in the model. The Anxiety facet proved to be a good predictor of Dealing with Adversities (B=-0.42, β=-0.40, SE Bootstrap=0.10, p<0.05 [95% CI=-0.62 – 0. 22]), explaining 43% of the variance. The facets Anxiety (B=-0.32, β=-0.29, SE Bootstrap=0.13, p<0.05 [95% CI=-0.59 - 0.05]) and Depression (B=-0.24, β=-0.29, SE Bootstrap=0.10, p<0.05 [95% CI=-0.45 - 0.02]) were good predictors of the Worry-Free skill, explaining 43% of the variance.

The Performance under Pressure factor can be predicted by a group of facets, namely Anxiety (B=-0.39, β=-0.31, SE Bootstrap=0.15, p<0.05 [95% CI=- 0.70 - 0.08]), Energy (B=0.37, β=0.31, SE Bootstrap=0.15, p <0.05 [95% CI=0.07 - 0.60]), Confidence (B=-0.27, β=-0.04, SE Bootstrap=0.10, p<0.05 [95% CI=-0.47 - 0.07]) and Aesthetic sensitivity (B=-0.19, β=-0.18, SE Bootstrap=0.08, p<0.05 [95% CI=-0.35 - 0.02]), that explain 30% of the variance. In contrast, no facet of personality has been able to significantly predict Coping skills entitled Motivation, Concentration and Trainability.

Discussion

The purpose of this study was to examine the associations between personality traits, considering the Five Factor personality model, and psychological coping skills, in professional League of Legends players. Understanding how the individual psychological characteristics are related with the use of coping styles during the game can be important to develop future strategies that enable the mapping and training of personality traits which are most relevant to the performance of the athletes in the game.

At the personality factor level, conscientiousness and neuroticism were identified as the most relevant traits to explain the coping skills of the sampled participants. Conscientiousness seems to be associated with the use of coping strategies focused on emotion, this pattern is consistent with the literature (Allen et al., 2012; Kaiseler et al., 2012; Leszko et al., 2020).

Conscientiousness is the trait that describes the individual differences in terms of propensity to self-control, competence, responsibility, and organization (Srivastava & Das, 2013). This trait has shown to be related with coping aspects that describe the preparation and the performance at the task itself. Athletes with an elevated level of conscientiousness cope with the demands of the game by facing the stressor (Allen et al., 2012) in such a way that their strategies are geared into the resolution of the problem, making it easier for the athlete to maintain productivity during the game. In this way, the conscientious players are benefited by their functionality pattern that involves organization and compromise. In practice, this pattern of behavior will be turned into training and preparation, a signal that the athlete is effectively dealing with the stressor, with the commitment to identify it and solve it. Therefore, the level of conscientiousness biases the functioning of the player, making him find specific aspects of a problem that can be controlled, for example, through training.

In turn, Neuroticism is the personality trait associated with emotional suffering and instability, the pattern of behavior that can be reflected in the level of tension and concern experienced by the athletes before or during the game. In practice, this personality attribute affects the way the athletes handle adversity and how they perform their role in the game. Emotionally unstable athletes, in other words, with elevated levels of anxiety or depression will tend to avoid the stressor (Allen et al., 2012), instead of solving it or preparing themselves to face it. This means that the higher the Neuroticism score, the more the athlete will avoid and not confront the source of stress.

Neuroticism was shown to be related to the skills of Coping with adversity, Motivation and Free from worries, which are aspects of coping indicative of Coping's ability to focus on the emotions triggered by the stressful event. This trait appears in the literature linked to the avoidance coping in athletes (Antoniazzi et al., 1998; Connor-Smith & Flachsbart, 2007; Folkman, 2010; Nicholls & Polman, 2007). On the other hand, athletes who think they can cope with the stress of competition, and demonstrate greater self-confidence, will tend to face the stressor, without avoiding it, but seeking to control its effects on the performance in the game. This discussion agrees with Connor-Smith and Flachsbart (2007), who indicate that low levels of Neuroticism are associated with the use of Coping strategies focused on emotion in a positive way.

Further reading of the data at the facet level leads us to identify which personality attributes are effectively associated with the participants' coping skills. There was a clear emphasis on Anxiety (Neuroticism) and Productivity (Conscientiousness) as the most relevant traits for the understanding of coping skills in the sample. Anxiety is a highly relevant trait to understand the nature of the strategy used by the athlete to deal with the stress derived from the game while he is playing. This trait impacts the way the athlete will deal with adversity, generating a negative effect on his ability to perform under pressure. Anxiety, possibly, will affect the athlete's reasoning and decision-making ability, in such a way that

impulsive acts can occur in response to stress. Also, anxiety can cause the athlete's body to become tense, compromising his breathing, and tranquility. All of this can lead the athlete to present fears and concerns related to the future and limit the athlete's ability to resist and stay in the game, whose attributes are operationalized within the trait Neuroticism.

It has been documented that athletes with high scores in Coping with Adversity tend to remain positive and enthusiastic even when facing unexpected or unfavorable situations, demonstrating a calm, controlled and quick recovery behavior after mistakes and setbacks (Coimbra, 2011). The more concern the athlete presents during the game, which indicates his level of anxiety, the less will be his ability to deal with the adversities of the game. These athletes will tend to act impulsively, eventually angry, and emotionally vulnerable, being guided more by the emotions experienced in the game than by a strategy itself.

It should not be forgotten that the athlete's concerns will also be influenced by his depression level. Worry-free is the coping dimension that represents the ability to focus on what is expected to happen instead of focusing on what you prefer not to happen. Even when their performance is not satisfactory, or when they make mistakes, individuals with high scores in this dimension of coping will tend not to worry unnecessarily, about what they will think or talk about them and their performance. In this way, having a low level of depression, which would indicate emotional stability and the ability to turn to the positive side of things, could make athletes respond adaptively to the demands of the game, acting less impulsive and more strategically. Consequently, this would reveal a pattern of behavior that does not include the escape from the stressor, but the ability to identify and deal with it.

Productivity show to be an attribute of personality capable of predicting the athlete's judgment and feeling regarding his level of preparation to face the challenges of the game. It is understood that the athlete's commitment to the game is related to the perception that he is prepared for the game's challenges. Thus, conscientious athletes can easily identify weaknesses in their performance that deserve attention and can intentionally commit to training or developing these attributes. Mental preparation is the dimension of Coping that concerns the ability to define and work with specific performance goals, in addition to mentally planning and preparing for training and competitions, in such a way that individuals with a high score in this dimension are provided with training plans. action for the situations they may encounter.

In this regard, we can suggest that the individual level of Productivity helps in the creation of images and plans that can better visualize reality (Coimbra, 2011). This characteristic, concerned with goals and preparing for sporting events, are associated with people's productive capacity, in such a way that having high levels of Productivity can cause the individual to transfer this behavior into the game. It is essential to remember that the Productivity facet is positively related with individual performance in the academic and work environment (Soto & John, 2017), which allows us to suggest that athletes with higher scores in this facet would have a greater impetus to develop strategies previously to feel more prepared for the championships, even developing planning for the competitive actions yet to come.

The factor Performance under Pressure of the ACSI-25BR is significantly related with a set of personality attributes: Anxiety, Energy, Confidence (Agreeableness) and Aesthetic Sensitivity. Apparently, this group of personality facets seems to be related to the athlete's ability to perform well under pressure. The Performance under pressure dimension involves the player's ability to use some strategy to cope with the stress derived from competition. Its known athletes with higher scores in this dimension prefer to be placed under pressure and have better performance in situations of this type (Coimbra et al., 2013). These athletes will find themselves challenged in the face of a demanding situation, instead of threatened.

On the other side, players who exhibit behaviors of sadness, irritability and emotional instability, aspects of the personality related to the Anxiety facet, will tend to be less confident in their ability to cope with the stress generated by the competition. These athletes may not even ask for social support and help from other players, understanding that they must resolve conflicts independently, possibly impulsively. Thus, high anxiety ends up incurring impulsive acts therefore. Impulsivity, in this case, would be possible predominant when faced with the presence of an individual tendency to behave in an energetic and stimulated way. Also, the level of anxiety is linked to the individual's self-acceptance (Soto & John, 2017).

Thus, together, high anxiety and high energy level should impact on aspects such as decision making and the relation with the role in the game, which reflects the reduced ability to perform under pressure. The level of Anxiety influences the athlete's perception of his ability to overcome the challenges in game, affecting his level of tension, insecurity, and concern, which may or may not make it easier for the player to accept his mistakes and recover from defeats. In this way, we understand that the individual level of anxiety will bias the way the athlete deals with the sources of pressure (environment, thoughts, emotions). In turn, the energy level may influence behavior to express impulsive acts.

It was observed that the Confidence personality facet, of the Agreeableness factor, is negatively related to Performance under pressure. This leads us to believe that the more confident the athlete feels, possibly, the greater his tendency to neglect the improvement of

specific skills. For overvaluing his own competence, the athlete can conclude that he no longer needs to train, which will lead to the presentation of behaviors that indicate non-commitment, for example lack of practice in the game to overcome weaknesses. Otherwise, the result also suggests that the greater the athlete's performance under pressure, the more prepared he believes he is to face the challenges of the game.

A positive relationship was observed between the athlete's level of Aesthetic sensitivity, a facet that involves aspects of personality related to creativity, sensitivity, and openness to experiences, with the self-perception of own performance under pressure during LOL. This result suggests that, to have a more positive perception of his own performance under pressure, the player needs to feel he has some autonomy to act with new moves. This autonomy could make it easier for the athlete to find more adaptive ways (sensitive and creative) for the stressors that arise. In this case, we understand that the level of openness benefits the athlete, since athletes with high scores in openness would be more likely to seek some innovation.

Seen altogether, the results indicate that most coping skills can be predicted by some personality trait. More specifically, the analyzes confirm that Neuroticism and Conscientiousness are the personality traits with the greatest potential for predicting scores on coping skills. In addition, the pattern in the findings allows us to agree with the hypothesis that the Conscientiousness trait is related to coping strategies aimed at the problem, whereas Neuroticism is associated with coping strategies aimed at emotions.

Because eSport is a very recent subject in science, it is not surprising that there are several limitations in the present study. One limitation concerns the low number of participants in the sample, which is because there are not many professional League of Legends players in Brazil, nor do they all accept to participate in the research. In addition, the sample of professional players was mainly composed of men, which is due to the low participation of women in the Brazilian competitive scenario of League of Legends. Likewise, the low precision obtained in the personality and coping instruments possibly must have occurred due to the size of the sample, however, we cannot ignore the need for the results currently presented to be tested again in the future, involving more comprehensive samples of participants. Despite these limitations, the results obtained indicate that personality is a relevant variable to understand why certain athletes will present more adaptive strategies to deal with adversity during LOL, while others will do so in a non-adaptive way, eventually even avoiding experiences.

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Authors' contributions

Specifically, the author(s) Rafael and Carlos participated in the initial writing of the study (conceptualization, investigation, visualization); the author(s) Rafael, Carlos and Jeferson participated in the data analysis, and the final writing of the work (review and editing). All authors declared that they agreed with the content of the manuscript submitted to the journal Avaliação Psicológica.

Availability of data and materials

All data and syntax generated and analyzed during this research will be treated with complete confidentiality due to the Ethics Committee for Research in Human Beings requirements. However, the dataset and syntax that support the conclusions of this article are available upon reasonable request to the principal author of the study.

Competing interests

The authors declare that there are no conflicts of interest.

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