Abstract: During sporting competition, athletes are used to facing pressure situations. Personality, reflecting stable patterns of thoughts, feelings, and emotions, can influence psychophysiological responses to pressure, which can lead either to an increase or a decrease in sport performance. Understanding the mechanisms triggering performance decrement under pressure is crucial in order to form suitable interventions to address this phenomena. At the cognitive level, a decrease in sport performance is likely to be associated with a decrease in executive performance. Executive functions serves as an umbrella term for goal-oriented control functions of the prefrontal cortex. Three basic executive functions are usually considered: working memory, cognitive flexibility, and inhibition. Furthermore, moderators may play a role regarding how pressure influences executive functions, and in this chapter, we focus on the role of personality. Specifically, the concept of trait activation will be discussed, and how different personality traits influence executive functioning depending on the characteristics of the situation. Practical implications for athletes, coaches, and referees will be detailed, specifically around training executive functions. This training may help the population of interest to cope with performance decrements linked to specific trait activation under pressure.

Running Head Right-hand: Personality

Running Head Left-hand: Sylvain Laborde, Sinikka Heisler and Emma Mosley

10

Personality

Sylvain Laborde, Sinikka Heisler and Emma Mosley

Introduction

Imagine a swimmer on the blocks, moments before their dive into the water, or a soccer player standing at the penalty spot waiting to take a crucial shot. Spectators are watching, cameras are rolling, and everyone is waiting for the athlete to show his/her best performance. Even though both of them have done this countless times in training and competition, they feel the pressure. Athletes can perceive pressure due to competitive and organizational demands (Hanton, Fletcher, & Coughlan, 2005; Hill, Hanton, Matthews, & Fleming, 2010; see also Chapter 1), and how athletes deal with upcoming stress and perceived pressure is diverse. For some athletes, this pressure helps to increase performance, while for others, it might lead to a performance drop (Baumeister, 1984). Research has labeled positive performance outcomes under pressure "clutch performance" or "excelling under pressure" (Hill et al., 2010; Otten, 2016). In contrast, "choking under pressure" defines negative performance outcomes when athletes are confronted with stress (Baumeister, 1984). The resulting performance can be best described as a continuum ranging from choking to excelling under pressure (Geukes, Mesagno, Hanrahan, & Kellmann, 2013). Several explanations have been proposed and empirically tested, to gain a better understanding of performance variability due to the perception of pressure. The most prominent approaches are the self-focus model and the distraction model (Baumeister & Showers, 1986). Both are addressing the intrapersonal psychological processes that are affected by situational

characteristics (i.e., pressure). Within those intrapersonal psychological processes, personality and executive functions play a particular role. The aim of this chapter is to define personality, to provide an overview of personality research in sport as it relates to stress, and to clarify the influence of personality on the relationship between executive functions and performance when athletes perform under pressure.

Personality

Personality is defined as "psychological qualities that contribute to an individual's enduring and distinctive patterns of feeling, thinking, and behaving" (Pervin & Cervone, 2010). Personality refers to stable patterns; however, it is also subject to change and development across the lifespan (Caspi & Roberts, 2001; Caspi, Roberts, & Shiner, 2005; Roberts, Walton, & Viechtbauer, 2006) and can be specifically developed in line with targeted interventions (Roberts & Woodman, 2017). The relevance of personality traits for sporting performance and well-being has been considered for many years in the history of sport psychology (Eysenck, Nias, & Cox, 1982; Morgan, 1980). Several reviews have contributed to establish understanding of how personality functions within sport psychology and sport and exercise phenomena, with findings related to both performance and well-being (Allen, Greenlees, & Jones, 2013; Rhodes & Smith, 2006; Roberts & Woodman, 2015, 2016, 2017; Roberts, Woodman, & Sedikides, 2018). Themes regarding performance showed that elite athletes tend to display higher levels of conscientiousness and lower levels of neuroticism (Allen et al., 2013). Themes regarding well-being, triggered by involvement in physical activity (Blackburn et al., 2020), highlighted a positive relationship with extraversion, conscientiousness, and negative relationships with neuroticism (Rhodes & Smith, 2006). Research on personality in sport and exercise started in the first half of the 20th century, where the focus was first to identify particular traits among athletes (Fleming, 1934). In this study, athletic females' personality traits were not found to differ from personality traits of non-athletic females. Research then progressed to understand the

bidirectional relationship between sport and exercise and personality, whether specific personality traits were related to the practice of specific sports (gravitation hypothesis), or whether the practice of specific sports influence personality traits (change hypothesis) (Allen et al., 2013). So far no conclusive evidence was put forward for either hypothesis, given the lack of longitudinal studies. However, some relationships would be interesting to further investigate, like the associations found in a meta-analysis regarding the participants engaging in risk-taking sports, displaying a higher degree of extraversion and sensation-seeking (McEwan, Boudreau, Curran, & Rhodes, 2019).

The main conceptualization for personality traits is represented by the Five-Factor Model, also known as the Big Five Model (McCrae & John, 1992). This framework considers that personality is best assessed through five broad trait dimensions (openness, conscientiousness, agreeableness, extraversion, and neuroticism). Those five dimensions have already shown relationships with stress (Carver & Connor-Smith, 2010), well-being (DeNeve & Cooper, 1998), and performance (Allen et al., 2013; Barrick, Mount, & Judge, 2001) in many different domains. Despite the evidence and the established relationships, the Big Five is not without criticisms. The key criticisms are centered around its absence of a theoretical background—the Big Five is based on a factorial analysis—and does not adequately capture the diversity of behaviors, thoughts, and feelings observed in sport and exercise phenomena (Laborde, Allen, Katschak, Mattonet, & Lachner, 2019). Consequently, it is necessary to consider other personality traits (Laborde & Allen, 2016; Laborde et al., 2019; Laborde, Breuer-Weissborn, & Dosseville, 2013; Mosley & Laborde, 2015; Roberts & Woodman, 2017). Finally, regarding assessment, if the most common way to assess personality traits is questionnaires (Laborde et al., 2019), sometimes broader personality perspectives are considered, for example, characteristic adaptations and life narrative through interviews to achieve a more complete picture of human complexity (Coulter, Mallett, Singer, & Gucciardi, 2016; McAdams & Pals, 2006).

A measure typically used in sport to assess the Big Five is the NEO-FFI (Costa & McCrae, 1992), employed in several studies with athletic samples (e.g., Allen, Frings, & Hunter,

2012; Allen, Greenlees, & Jones, 2014). For personality traits distinct from the Big Five, specific instruments are adopted, such as the Bar-On Inventory (Bar-On, 2002) and the Trait Emotional Intelligence Questionnaire (Petrides, 2009) to measure emotional intelligence. Given using instruments developed for the general population with athletic samples may present some conceptual validity issues (Allen et al., 2013), it is recommended that scholars assess the validity and factor structure of measures within athletic populations. Following with the example of emotional intelligence questionnaires used with athletic samples (Laborde, Dosseville, & Allen, 2016), the factor structure of well-established questionnaires has been investigated within athletic populations, like with the Bar-On Inventory (Stanimirovic & Hanrahan, 2012) and the Trait Emotional Intelligence Questionnaire (Laborde, Dosseville et al., 2014; Laborde, Guillen, & Watson, 2017).

Given personality is reflected in patterns of feelings, thoughts, and behaviors (Pervin & Cervone, 2010), it is very likely to be linked to the processes underpinning our feelings, thoughts, and behaviors, driven by the so-called executive functions (Diamond, 2013). In the next section, we detail what executive functions are, before specifying their links with a range of personality traits, summarized in Figure 10.1.

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Figure 10.1 The Influence of Personality on the Relationship Between Executive Functions and Performance via Trait Activation

Executive Functions

Executive functions serve as an umbrella term to encompass the goal-oriented control functions of the prefrontal cortex (Best, Miller, & Jones, 2009; see also Chapter 5). Several definitions and conceptualizations coexist (for an overview, see Jurado & Rosselli, 2007). Diamond (2013) distinguishes between three core executive functions: working memory, inhibition, and cognitive

flexibility. Those three core executive functions are involved in almost every aspect of sporting performance (e.g., thinking before moving, refreshing information within short term memory, resisting temptations, and staying focused). A more specific example would be the control of gaze, whereby the three executive functions influence an athlete's ability to master a steady gaze (Ducrocq, Wilson, Smith, & Derakshan, 2017). Specifically, to fixate the gaze "for long periods of time under high levels of pressure should not only necessitate good resistance to distraction (i.e., inhibition), but also efficient within-task attentional control (i.e., shifting) and the maintenance of accurate representations of non-fixated targets (i.e., updating)" (p. 5; see also Chapter 5). In the last two decades executive functions have received a lot of attention in the context of sports (Scharfen & Memmert, 2019; Voss, Kramer, Basak, Prakash, & Roberts, 2010). As executive functions are heavily involved in controlled cognitive functioning, the factors which influence this, both positively and negatively, are of major interest in performance research (Diamond, 2013), and in this chapter, we focus on the influence of certain personality traits under pressure.

Trait Activation

The personality of an athlete has a strong influence on performance and may predict behavior to a certain extent in particular situations (Allen, Vella, & Laborde, 2015; Laborde et al., 2019). As noted previously, personality is understood to be stable in nature and thereby cross-situational (Pervin & Cervone, 2010); however, there is also evidence that behavior may differ across situations. This is in line with previous personality theory, such as with Lewin's equation, stating that behavior is ultimately a function of the person interacting within his/her environment (Lewin, 1936). This idea was renewed at the beginning of the 21st century with the introduction of the concept of trait activation (Fleeson, 2001; Geukes, Mesagno, Hanrahan, & Kellmann, 2012; Tett & Guterman, 2000). Even though situational demands were already considered in personality research, their importance was not explicitly emphasized. Research on trait activation

does not disagree on the stability assumption, but adds a new facet. Based on the trait activation concept, a person-situation interaction has to be considered, and the way personality shapes behavior will consequently depend on the context (Geukes et al., 2012). The concept of trait activation has been recently evidenced in the sports context (Geukes, Harvey, Trezise, & Mesagno, 2017; Geukes et al., 2012).

Returning to the example of the swimmer standing on the starting block. During practice, they do not perceive any pressure and can solely focus on the task, but when the situation changes and spectators are around, their focus may switch inwardly to themselves. The personality trait fear of negative evaluations (FNE) is suddenly activated and leads to a drop in performance, because the situation has changed. Geukes and colleagues (2013) tested this paradigm and showed that in a private high pressure condition self-focus traits got activated by situational demands, whereas in a low-pressure condition this was not the case. When assessing differing pressurized situations such as private, mixed, and public, a similar result was found in that with differing pressurized situational demands, self-focused traits were systematically activated (Geukes et al., 2013). Importantly, the traits have to be situation-relevant, meaning that in the aforementioned example, other traits such as openness to new experiences might not be activated because it is not relevant in this particular situation (Tett & Guterman, 2000).

Several studies have tested the concept of trait activation in the sports context, mostly related to stress and performance. The following list contains the psychological traits that have been investigated:

- **Athletic identity**—the degree (i.e., strength and exclusivity) to which individuals identify with the role of an athlete (Brewer, Van Raalte, & Linder, 1993; Geukes et al., 2017). Individuals scoring high on athletic identity are suggested to have a higher tendency to choke under pressure, although this still needs to be demonstrated experimentally (Geukes et al., 2017).

- **Dispositional reinvestment**—described in depth in the subsequent sections (Geukes et al., 2017; Kinrade, Jackson, & Ashford, 2010; Laborde, Furley, & Schempp, 2015).
- **Fear of negative evaluation**—described in depth in the subsequent sections (Geukes et al., 2017; Mesagno, Harvey, & Janelle, 2012).
- **Narcissism**—narcissist individuals are characterized by inflated self-appraisal, chronic self-glorification strivings, and their lack of concern for others except as sources of admiration (Wallace, Baumeister, & Vohs, 2005). Narcissists perform better when self-enhancement opportunities are high rather than low (Wallace & Baumeister, 2002), which may be the case when playing in front of a supportive audience under pressure (Wallace et al., 2005).
- **Private self-consciousness**—refers to the attention one gives to one's thought and feeling processes (Fenigstein, Scheier, & Buss, 1975; Geukes et al., 2013; Wang, Marchant, Morris, & Gibbs, 2004). Under private high-pressure situations (i.e., with a cover story outlining that the sporting task participants would undertake had been found to predict academic success and a monetary incentive but with no audience), private self-consciousness was associated with performance decrements (Geukes et al., 2013).

In the following sections, we focus on FNE and dispositional reinvestment, given their close interplay with executive functions (Kinrade et al., 2010; Laborde et al., 2015).

Fear of Negative Evaluation

In the sports domain, performance evaluation is ubiquitous. Athletes are getting scouted for talent, contractually bounded to a club, and supported by fans. All of these situations involve subjective judgment of their talents, achievements, and development. Hence, athletes are confronted with many external expectations and evaluations (Leff & Hoyle, 1995) and how

individuals cope with this might differ. Watson and Friend (1970) defined FNE as the tendency to experience “apprehension about others’ evaluations, distress over their negative evaluations, avoidance of evaluative situations, and the expectations that others would evaluate oneself negatively” (p. 449). Geukes and colleagues (2017) further described it as a cognitive sub-facet of competitive anxiety.

Personality traits that belong to or are closely bound to (competitive) anxiety are conceptually related to the Distraction Model of Choking (Mesagno, Harvey, & Janelle, 2012; Wang et al., 2004; Wine, 1971). Mesagno and colleagues (2012) studied the degree to which FNE as a personality trait can predict choking under pressure. Experienced basketball players performed basketball shots from different areas on the court under high- or low-pressure conditions. Results indicate that athletes high in FNE showed a significant increase in anxiety, and at the same time, a significant decrease in performance. However, athletes with low FNE only showed minimal changes between pressure situations, supporting the hypothesized influence of trait activation in a pressurized situation. In another study, Geukes and colleagues (2017) assessed experienced basketball players in a real-world high-pressure situation, namely during 12 basketball games. In comparison to a private low-pressure situation in the laboratory, athletes high on FNE showed a significant performance decrease in competition. These results again underpin the influence of self-presentation related concerns (such as FNE) in public pressure situations (Geukes et al., 2017). Further research should investigate the influence of FNE on executive functions during both low- and high-pressure situations, in order to clarify the mechanisms underlying its influence on performance.

Dispositional Reinvestment

The player is stood at the penalty spot during the penalty shoot-out of the Champions League final. If he/she scores, his/her team will win the Champions League, and if he/she misses, they will be out of the competition. The aim is to display a successful performance and thereby

become the hero of the team. Due to this, the player starts to actively concentrate on his/her stance and thinks about their foot position and where to aim. As a result, he/she missed the goal by miles, which has never happened during practice.

What happened here could be due to a higher dispositional tendency to *reinvest*. Reinvestment is defined as the tendency to consciously control a well-learned skill under pressure (Masters, Polman, & Hammond, 1993). Most importantly, to reinvest means to disrupt the automatized processing by relating to explicit knowledge (Geukes et al., 2017). The result is that athletes revert back to a novice-like state in which all expertise is diminished. This can be explained by the fact that athletes are consciously controlling skills when facing stressful situations, which makes those skills more fragile and more susceptible to disruption. Another explanation is that the explicit processes used when reinvesting under pressure consume working memory, and the reduced function of working memory then debilitates automatic processing, causing skill breakdown under pressure (Masters & Maxwell, 2004). Reinvestment is considered as a stable disposition comparable to a personality trait and is assessed via trait instruments with the movement-specific (Masters, Eves, & Maxwell, 2005) and decision-specific (Kinrade et al., 2010) reinvestment scales. The trait nature of reinvestment has been further confirmed by test-retest reliability and convergent validity analyses with related personality traits (Laborde, Dosseville, & Kinrade, 2014; Laborde et al., 2015). Reinvestment has gained a large amount of attention in sports, accounting for performance variance in top-level athletes in different sports such as golf (Klämpfl, Lobinger, & Raab, 2013; Lobinger, Klämpfl, Altenmüller, & Altenmüller, 2014), basketball (Gray, 2004; Kinrade, Jackson, & Ashford, 2015), and soccer (Chell, Graydon, Crowley, & Child, 2007).

The reinvestment definition of Masters and Maxwell (2004) emphasizes the importance of considering executive functions, particularly that of working memory. Reinvestment is defined as the "manipulation of conscious, explicit, rule-based knowledge, by working memory, to control the mechanics of one's movements during motor output" (p. 208). This relationship was further supported by the work of Laborde et al. (2015) who investigated the link between

reinvestment and working memory performance in different pressurized conditions (i.e., low vs. high). Additionally, the role of physiological measures, namely heart rate variability was addressed. Findings indicate that reinvestment was related to a drop in working memory performance under high pressure, which was also associated to a decrease in cardiac vagal activity, as measured with heart rate variability. Cardiac vagal activity indexes the activity of the vagus nerve regulating cardiac functioning and reflects self-regulation abilities of the individual linked with executive functions (Laborde, Mosley, & Mertgen, 2018; Laborde, Mosley, & Thayer, 2017). These results are in line with other studies, showing the negative influence of reinvestment in high pressure situations on physiological parameters (Mosley, Laborde, & Kavanagh, 2017, 2018a) as well as cognitive decision-making performance (Laborde, Raab, & Kinrade, 2014).

Choking Under Pressure: Links With Personality

Research on choking under pressure has considered different explanations, with the distraction model and the self-focus model being the most prominent standpoints (Beilock & Gray, 2007; Lewis & Linder, 1997). The distraction model suggest performance drop occurs because athletes become distracted due to task-irrelevant thoughts (see also Chapter 5). Through the increase of physical arousal, athletes shift their attention to irrelevant cues originating internally (e.g., negative thoughts and fear) or externally (e.g., the crowd). The aforementioned trait of FNE is directly linked to this hypothesis. It is proposed that the anxious thought about getting evaluated by others results in a distraction (Gröpel & Mesagno, 2017; Mesagno et al., 2012; Wine, 1971).

Within the self-focus model, researchers emphasize the role of the shift from automatized to controlled processing (e.g., Baumeister, 1984; Jackson, Ashford, & Norsworthy, 2016; Otten, 2016). When athletes perceive pressure they are directing attention to the task execution itself, aiming to put more effort into the task execution. However, well-skilled athletes have already performed task-relevant movements several times so that there is no need of conscious control.

When those processes are then monitored or controlled, it leads to substandard performance (Geukes et al., 2012). The self-focus explanation was supported by several empirical studies (Beilock & Carr, 2001; Gucciardi & Dimmock, 2008; Mesagno, Marchant, & Morris, 2009). Dispositional reinvestment and its influence in explaining choking under pressure has been related to the self-focus model (Kinrade et al., 2010; Masters et al., 1993) and was supported by empirical evidence (Geukes et al., 2017; Laborde et al., 2014; Mosley et al., 2018a). Both distraction and self-focus models can account for decrements in executive functions (Furley & Memmert, 2010). For instance, the distraction model can explain why pressure-induced worries caused working memory deficits, by thinking about a dual task. According to Hill and colleagues (2010), resources are redistributed in order to cope with negative thoughts and thereby taken from task-relevant to task-irrelevant cognition. Interestingly, a self-focus appears not be detrimental per se, but can be beneficial in performing tasks that require working memory as part of their execution, or when someone learns a skill, like for novices. In contrast, for tasks that do not require any information updating and the skills required are well learnt (i.e., proceduralized skills), a self-focus remains negative (Geukes, Mesagno, Hanrahan, & Kellmann, 2016).

The self-focus and the distraction model were identified to be the most prominent explanatory models of choking under pressure and have showed a direct link to executive functions. The next section aims to offer a direct approach to cope with the activation of certain personality traits leading to choking under pressure with the introduction of practical training aiming to improve executive functions.

Practical Implications

Based on the aforementioned moderator role suggested for personality, certain traits may become particularly activated under pressure and provoke performance decrements. In this sense, we could then screen athletes for these traits to identify those who may be more susceptible to performance decrements under pressure and provide specific interventions to optimally support

them. In this section, we suggest a novel intervention approach to counterbalance the negative effects of trait activation by training executive functions.

Athletes spend a vast amount of time and effort in the pursuit of improving athletic skills with the aim of reaching top-level performance even when confronted with pressure. Aside from physiological and tactical abilities, cognitive skills are necessary to perform more complex tasks, especially under perceived pressure (Nicholls, Holt, Polman, & James, 2005). Recent evidence shows that adding executive function training to normal training may result in positive benefits regarding performance under pressure (Ducrocq et al., 2017; Ducrocq, Wilson, Vine, & Derakshan, 2016). Recreational tennis players participated in the study of Ducrocq et al. (2017). The experimental group underwent a 10-day working memory training program, using the adaptive Dual-N-Back task (Owens, Koster, & Derakshan, 2013), while the control group accomplished the non-adaptive Dual 1-Back control task. With the Dual-N-Back task, participants were presented with a 3 × 3 grid where squares appear successively, together with a letter being spoken. Participants were then required to memorize the position of the square as well as the letter spoken and then asked to respond whenever either of the audio or visual stimuli previously matched the letter spoken or the position of the square "n" back trial. The difference between the adaptive and non-adaptive version of the task lies in the fact difficulty would increase in the adaptive task according to participants' success rate, while difficulty would remain at $n = 1$ for the non-adaptive task. Results showed that working memory capacity improved for the experimental group but not for the control group, being described as near effects of adaptive working memory training. The near effects represent the effects of n-back task practice on n-back task performance. Furthermore, tennis performance in a highly pressurized task also showed transfer effects after adaptive working memory training. Specifically, the negative influence of pressure on performance seemed to be buffered by working memory improvement, through the ability to have more facilitative attentional control on the tracked target via a delayed quiet eye offset. Consequently, not only was working memory capacity improved, but also more general athletic performance (i.e., tennis performance) was

shown to increase. These findings add to another study of Ducrocq et al. (2016) who found enhanced inhibitory control on cognitive and motor tasks through a computer-based inhibition training. Both results highlight the potential of executive function training in the improvement of performance on the one hand and as a buffer against pressure-induced performance decrement on the other. Although this concept is not without limitations, research on executive function development showed that transfer effects from computerized training to real-life situations are overall very low (Diamond & Ling, 2016). In order to expect benefits, training should be realized in a situation as near to the ecological settings where the improvement is desired. In the following paragraph, we recommend some training ideas that can be applied to the sports context.

With respect to working memory, an activity adapted from the Dual N-Back task (Gevins & Cutillo, 1993) could be, for example, to randomly distribute colored items on the field, and then announce a specific order of colors. Athletes are then asked to run in this order correctly after they have heard the whole list. The difficulty can be adjusted by adding or removing colors or items. In team sports, this can be adapted to players passing the ball to each other. When the signal comes, the player with the ball is asked to recall the N~~n~~-back player with ball possession. Difficulty can be increased with incrementing the N~~n~~-back number. For inhibition, the aim is to suppress any kind of behavioral response. For example, two players engage in passing the ball, and when player A says “right”, player B has to pass the ball with the left hand or foot. When player A says “Up”, player B has to pass the ball toward the lower body part of player A. To improve cognitive flexibility, it is important to switch between rules. Based on the preceding example to train inhibition, one should not only inhibit movement but also switch to a second rule, for example, when player A says “Up”, player B has to pass the ball toward the lower body part of player A only when player A used the left hand or foot. Consequently, when player A says “Up” and passes the ball with the right hand or foot, player B is required to pass the ball toward the upper body part of player A.

Future Research Directions

Future research on this topic may address a couple of challenges that were identified within this chapter. First, a systematic approach has to be undertaken to investigate the influence of personality traits both under low- and high-pressure conditions, in order to identify those which may have the tendency to trigger performance decrements, following previous research designs used to test trait activation in sport and exercise settings (Geukes et al., 2012, 2017). Additionally, extant trait activation research in sports should go beyond performance and investigate as well the impact of different contexts on well-being. Second, the role of executive performance in performance decrements linked to specific trait activation under pressure should be clarified. Third, the effectiveness of executive function training programs should be tested to see whether drops in performance under high pressure when people possess certain personality traits could be avoided. Finally, the relationship with physiological variables linked to personality and executive performance under pressure, like cardiac vagal activity (Laborde et al., 2017; Mosley et al., 2018a), should be investigated further.

Conclusion

In summary, this chapter defined personality, provided a brief overview of some personality research that has been conducted in sport, and then focused on explaining how the activation of certain personality traits in pressure situations can lead to a decrease in performance that is related to a deterioration in executive function (see Figure 10.1). As it is usually acknowledged, perceived pressure can lead to a decrease in performance either via inducing self-focus or distraction, and training executive functions is one method which is suggested to decrease these effects. Specifically, based on the findings of Ducrocq et al. (2017), the chapter illustrated how executive function training, and specifically targeting working memory, may help to counterbalance the negative effects of trait activation under pressure. Even if those findings

should be considered with caution and be replicated, it seems that this field of research opens exciting training avenues for athletes and coaches, in order to become more resilient to the pressure faced during competitions.

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