

# Role of Temperament and Psychological Coping Strategies in Athletic Performance and Sports Success

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**Abstract:** Athletic performance and sports success are determined by a complex interaction of physical fitness, technical ability, tactical knowledge, environmental conditions, and psychological characteristics. Among psychological factors, temperament and coping strategies have gained increasing importance because they influence how athletes perceive pressure, regulate emotions, respond to failure, maintain motivation, and perform under competitive demands. Temperament refers to relatively stable individual differences in emotional reactivity, behavioral tendencies, sensitivity to stimulation, and self-regulation. Psychological coping strategies refer to the cognitive, emotional, behavioral, and social methods used by athletes to manage stressors and demands. This review paper examines the role of temperament and psychological coping strategies in athletic performance and sports success.

**Keywords:** Temperament, Coping Strategies, Athletic Performance, Sports Success, Personality, Stress, Resilience, Sport Psychology.

## I. INTRODUCTION

Success in competitive sport depends on considerably more than physical strength, endurance, speed, or technical skill. Athletes are regularly required to perform under conditions involving uncertainty, evaluation, expectations, fatigue, injury, competitive pressure, and fear of failure. The ability to manage these psychological demands often distinguishes athletes who perform consistently from those whose performance varies substantially under pressure. Sport and performance psychology therefore emphasizes the role of psychological principles in facilitating optimal performance and helping athletes achieve their goals.

Temperament represents one important source of individual differences among athletes. It influences the intensity and duration of emotional reactions, sensitivity to environmental stimulation, behavioral activation, persistence, impulsivity, and the capacity for self-regulation. Although temperament is relatively stable, its expression is influenced by development, learning, socialization, coaching, and sporting experiences. In sport, temperamental differences may influence how athletes respond to competitive anxiety, criticism, physical discomfort, unexpected setbacks, and high-pressure situations.

Psychological coping strategies are equally important because athletes continuously encounter stressors that require adaptation. These stressors may include difficult opponents, poor performance, injury, selection pressure, academic demands, travel, media attention, interpersonal conflict, and expectations from coaches or family members. Coping refers to the cognitive and behavioral efforts used to manage demands that are perceived as stressful. Nicholls and Polman's systematic review demonstrated that coping in sport is a multidimensional and dynamic process involving different strategies and varying levels of effectiveness.

The relationship between temperament and coping is particularly relevant to athletic performance. Athletes with different temperamental characteristics may interpret the same competitive situation differently and may therefore select different

coping responses. An athlete with greater emotional stability may interpret a difficult competition as a challenge, whereas an athlete with high emotional reactivity may perceive the same situation as threatening. Similarly, athletes with stronger self-regulation may use problem-solving and attentional control, while more impulsive athletes may be more vulnerable to emotional or avoidant responses.

The present review examines the role of temperament and psychological coping strategies in athletic performance and sports success. Particular attention is given to theoretical foundations, temperamental characteristics relevant to sport, major coping strategies, the interaction between temperament and coping, practical applications, limitations, and future research directions.

## **II. CONCEPT OF TEMPERAMENT IN SPORT PSYCHOLOGY**

Temperament is generally understood as a biologically influenced pattern of emotional and behavioral tendencies that emerges early in development and contributes to relatively stable individual differences. Temperamental characteristics include emotional reactivity, activity level, persistence, sensitivity, adaptability, impulsivity, and self-regulation. Although temperament is often distinguished conceptually from personality, the two constructs overlap because early temperamental tendencies may contribute to the later development of personality characteristics.

In sport, temperament can influence an athlete's preferred behavioral style and psychological response to competition. Some athletes naturally demonstrate calmness and emotional stability under pressure, whereas others experience intense emotional activation. Some athletes are highly persistent and continue working despite repeated setbacks, while others may become discouraged more quickly. Such differences can influence training behavior, decision-making, competitive consistency, and long-term development.

Recent evidence concerning personality and athletic performance suggests that psychological traits can be meaningfully associated with performance outcomes. A systematic review found that conscientiousness and extraversion were generally related to better athletic performance, whereas neuroticism was associated with poorer outcomes, although the effects varied according to sport and competitive context. A more recent meta-analytic review also reported positive associations between several psychological characteristics and sports performance, including motivation, self-efficacy, conscientiousness, and extraversion.

Therefore, temperament should not be viewed as determining whether an individual will become a successful athlete. Instead, it may influence the psychological pathway through which athletes respond to training, competition, stress, feedback, and adversity.

**Table 1. Major Temperamental Characteristics Relevant to Athletic Performance**

| <b>Temperamental characteristic</b> | <b>Meaning</b>                                             | <b>Potential influence on sport performance</b>        |
|-------------------------------------|------------------------------------------------------------|--------------------------------------------------------|
| Emotional stability                 | Ability to maintain emotional balance                      | Supports calm decision-making under pressure           |
| Emotional reactivity                | Intensity of emotional response                            | May increase sensitivity to competitive stress         |
| Persistence                         | Tendency to continue despite difficulty                    | Supports long-term training and recovery from setbacks |
| Self-regulation                     | Ability to control thoughts, emotions, and behavior        | Improves focus and behavioral discipline               |
| Impulsivity                         | Tendency toward rapid, less controlled responses           | May negatively affect tactical decision-making         |
| Adaptability                        | Capacity to adjust to changing situations                  | Supports response to unexpected competitive demands    |
| Activity level                      | Natural tendency toward behavioral and physical engagement | May influence training involvement and intensity       |

|             |                                                 |                                                          |
|-------------|-------------------------------------------------|----------------------------------------------------------|
| Sensitivity | Responsiveness to internal and external stimuli | Can increase awareness but may also increase distraction |
|-------------|-------------------------------------------------|----------------------------------------------------------|

The characteristics shown in Table 1 demonstrate that temperament may create both advantages and challenges. A high level of emotional sensitivity, for example, may increase awareness of environmental cues but can also make an athlete more vulnerable to anxiety. Consequently, successful athletic development requires understanding how particular temperamental tendencies function within specific sporting environments.

### III. TEMPERAMENT AND EMOTIONAL REGULATION IN ATHLETIC PERFORMANCE

Emotional regulation is central to successful sport participation because competitive environments often produce intense emotional experiences. Athletes may experience excitement, anxiety, frustration, anger, disappointment, confidence, or fear within a short period. Temperament influences the initial intensity of these emotional reactions and may also affect how easily an athlete returns to an emotionally balanced state.

Athletes with greater emotional stability may recover more quickly from mistakes. For example, after missing an important scoring opportunity, an emotionally regulated athlete may redirect attention toward the next play. In contrast, an athlete who remains emotionally preoccupied with the error may experience reduced concentration and decision-making efficiency.

The ability to regulate emotional responses is particularly important in sports involving rapid decisions, repeated performance opportunities, and high levels of public evaluation. Psychological interventions may therefore focus on helping athletes develop awareness of emotional triggers and practice techniques for controlling their responses. Sport psychology commonly includes strategies such as cognitive-behavioral self-regulation, concentration training, imagery, goal setting, and emotional management.

Temperament may influence the intensity of emotional experience, but effective psychological training can improve how athletes respond to that experience. Therefore, emotional reactivity should not automatically be considered a weakness. In some athletes, high emotional activation may be transformed into competitive energy when accompanied by effective coping and regulation skills.

### IV. PSYCHOLOGICAL COPING STRATEGIES IN SPORT

Psychological coping refers to the strategies used to manage stressful or demanding situations. Sport-specific coping is particularly complex because athletes may experience several stressors simultaneously. The same athlete may use different coping strategies during training, competition, injury, interpersonal conflict, or career transition.

A systematic review of coping among elite athletes found a broad range of coping strategies and emphasized the importance of mental skills and social support in managing stress reactions. The review also concluded that coping in elite sport is complex and dynamic and that more intervention-based research is required to establish causal relationships.

Coping strategies are often grouped into several broad categories:

1. Problem-focused coping
2. Emotion-focused coping
3. Avoidance or disengagement coping
4. Cognitive coping
5. Behavioral coping
6. Social or interpersonal coping

The effectiveness of each strategy depends on the nature of the stressor. Problem-focused strategies may be useful when the athlete has some control over the situation. Emotion-regulation strategies may be more useful when the stressor cannot be immediately changed. Avoidance may sometimes provide short-term relief but can become harmful when it prevents athletes from addressing important problems.

**Table 2. Common Psychological Coping Strategies Used by Athletes**

| Coping strategy        | Example in sport                           | Possible benefit                                       |
|------------------------|--------------------------------------------|--------------------------------------------------------|
| Problem-solving        | Analyzing the cause of poor performance    | Improves control and corrective action                 |
| Goal setting           | Focusing on specific process goals         | Directs attention and motivation                       |
| Positive reappraisal   | Viewing failure as a learning opportunity  | Reduces negative emotional responses                   |
| Relaxation             | Breathing and progressive relaxation       | Controls excessive physiological arousal               |
| Imagery                | Mentally rehearsing successful performance | Improves confidence and preparation                    |
| Positive self-talk     | Using constructive internal statements     | Supports concentration and confidence                  |
| Attentional control    | Refocusing after distractions              | Maintains task-relevant attention                      |
| Seeking social support | Talking with coaches or teammates          | Provides emotional and practical assistance            |
| Acceptance             | Recognizing uncontrollable circumstances   | Reduces unproductive struggle                          |
| Avoidance              | Ignoring or withdrawing from the stressor  | May provide temporary relief but may hinder adaptation |

## **VII. PROBLEM-FOCUSED COPING AND ATHLETIC SUCCESS**

Problem-focused coping involves direct efforts to manage the source of stress. In athletic settings, this may include identifying performance weaknesses, changing tactics, increasing preparation, improving communication, or seeking technical advice.

This strategy can be particularly effective when athletes have some degree of control over the stressful situation. A swimmer who performs poorly because of inefficient turns can work directly on technical improvement. A team experiencing communication problems can address the issue through structured discussion. A runner dissatisfied with pacing can modify race strategy.

Problem-focused coping supports a sense of agency and can increase perceived control. Athletes who believe they can influence outcomes may experience greater confidence and motivation. However, not every sporting stressor is controllable. An athlete cannot directly control weather conditions, referee decisions, or the behavior of opponents. In such circumstances, excessive attempts to control uncontrollable events may increase frustration. Effective athletes must therefore distinguish between controllable and uncontrollable demands.

## **VIII. EMOTION-FOCUSED COPING AND PERFORMANCE UNDER PRESSURE**

Emotion-focused coping aims to regulate the emotional consequences of stressful situations. Common strategies include relaxation, breathing exercises, positive reappraisal, acceptance, mindfulness, and emotional expression.

Competitive anxiety can impair performance when attention becomes focused on potential failure rather than task execution. Emotion-focused coping can help athletes reduce excessive arousal and return attention to relevant performance cues. For example, slow breathing can reduce physiological activation, while positive self-talk can reduce catastrophic thinking.

However, emotion-focused coping should not be interpreted as simply suppressing emotion. Effective coping often involves recognizing emotional experiences while preventing them from dominating behavior. An athlete may acknowledge disappointment after an error but choose to refocus rather than continue mentally rehearsing the mistake. Psychological interventions frequently use visualization, relaxation, and self-talk to help athletes overcome performance barriers and enhance performance. These strategies are particularly relevant for athletes with greater emotional sensitivity or stronger competitive anxiety.

### **IX. AVOIDANCE COPING AND POTENTIAL PERFORMANCE PROBLEMS**

Avoidance coping includes efforts to withdraw from, ignore, or psychologically disengage from a stressful situation. Examples include denying a problem, procrastinating about rehabilitation, blaming others, or mentally withdrawing from competition.

Avoidance may temporarily reduce emotional discomfort. However, long-term dependence on avoidance can interfere with adaptation. Athletes who consistently avoid feedback may fail to address performance weaknesses. Similarly, an injured athlete who avoids rehabilitation-related concerns may delay recovery.

The relationship between avoidance and performance is not always simple. Brief disengagement may occasionally allow an athlete to recover psychologically after intense stress. Nevertheless, chronic avoidance is generally less likely to support sustained learning and adaptation than constructive engagement with the problem.

Athletes with higher emotional reactivity or lower self-regulation may be more vulnerable to avoidant responses, especially when competition is perceived as threatening. This possibility demonstrates why temperament and coping should be examined together rather than independently.

### **X. RELATIONSHIP BETWEEN TEMPERAMENT AND COPING**

Temperament can influence how athletes appraise stressors and select coping strategies. Athletes with high persistence may continue working toward solutions despite setbacks, whereas athletes with greater behavioral inhibition may become more cautious or avoidant in threatening situations.

Recent systematic research on personality and coping has reported consistent links between personality characteristics and coping domains, while also noting substantial variation in measurement and conceptual frameworks. Conscientiousness, extraversion, and openness were generally associated with more problem-focused coping, whereas neuroticism showed a stronger relationship with avoidant coping. Although this evidence is not limited to sport, the findings provide an important framework for understanding why athletes may differ in their responses to stress.

The temperament-coping relationship may be explained through cognitive appraisal. Athletes first interpret or evaluate a situation and then respond using available psychological resources. A highly reactive athlete may interpret criticism as a personal threat, whereas an emotionally stable athlete may interpret it as useful feedback. The resulting coping behavior may therefore differ substantially.

**Table 3. Interaction Between Temperament and Coping in Sport**

| Temperamental tendency    | Likely stress response                 | Potential coping pattern                 | Performance implication                  |
|---------------------------|----------------------------------------|------------------------------------------|------------------------------------------|
| High emotional stability  | Lower emotional disruption             | Problem-solving and positive reappraisal | Greater consistency                      |
| High persistence          | Continued engagement                   | Active coping and goal adjustment        | Improved resilience                      |
| Strong self-regulation    | Controlled behavioral response         | Attentional control and relaxation       | Better concentration                     |
| High emotional reactivity | Intense stress response                | Emotion-focused or avoidant coping       | Depends on coping effectiveness          |
| High impulsivity          | Rapid emotional or behavioral reaction | Less planned coping                      | Possible tactical errors                 |
| High adaptability         | Flexible response to change            | Strategy modification                    | Better adjustment to changing conditions |

Table 3 illustrates that temperament does not directly produce success or failure. Instead, temperamental tendencies may influence coping preferences, which subsequently influence emotional regulation and performance.

## **XI. PRACTICAL APPLICATIONS FOR COACHES AND SPORT PSYCHOLOGISTS**

The findings reviewed in this paper have important practical implications. First, coaches and sport psychologists should recognize individual psychological differences. Athletes should not be expected to respond identically to competitive stress.

Second, psychological assessment should identify both strengths and vulnerabilities. An athlete with strong persistence may require assistance with emotional flexibility, whereas an athlete with high emotional reactivity may benefit from relaxation and cognitive regulation.

Third, coping skills should be practiced during training rather than introduced only during major competitions. Athletes can learn to use breathing exercises, imagery, self-talk, and attentional cues under progressively stressful conditions.

Fourth, coaches should develop psychologically supportive environments. Constructive feedback, clear communication, and appropriate social support can strengthen athletes' coping resources.

Fifth, psychological interventions should focus on flexibility rather than teaching athletes one supposedly ideal coping strategy. Athletes need the ability to evaluate a stressor and select an appropriate response.

**Table 4. Practical Psychological Interventions for Athletes**

| Athlete need                 | Suggested intervention                 | Expected outcome               |
|------------------------------|----------------------------------------|--------------------------------|
| Excessive anxiety            | Breathing and relaxation training      | Reduced physiological arousal  |
| Low confidence               | Self-talk and mastery experiences      | Increased self-efficacy        |
| Difficulty after mistakes    | Refocusing routines                    | Faster emotional recovery      |
| Poor concentration           | Attentional control exercises          | Improved task focus            |
| Fear of failure              | Cognitive reappraisal                  | Reduced threat perception      |
| Difficulty managing setbacks | Resilience and coping training         | Greater psychological recovery |
| Social stress                | Communication and interpersonal coping | Improved team functioning      |
| Low persistence              | Process-oriented goal setting          | Improved long-term commitment  |

## **X. CONCLUSION**

Temperament and psychological coping strategies play significant and interconnected roles in athletic performance and sports success. Temperamental characteristics influence emotional reactivity, persistence, self-regulation, adaptability, and responses to pressure. These characteristics do not determine athletic success independently, but they can influence how athletes perceive competitive demands and which coping strategies they are likely to use.

Psychological coping strategies provide athletes with practical methods for managing stress and maintaining effective performance. Problem-focused coping, positive reappraisal, relaxation, imagery, self-talk, attentional control, goal setting, acceptance, and social support can contribute to effective adaptation when appropriately matched to the situation. The interaction between temperament and coping is especially important. Athletes with different temperamental tendencies may experience identical stressors differently and therefore require individualized psychological support. A successful psychological program should not assume that every athlete benefits from the same intervention.

Overall, sports success is best understood as the outcome of interaction among physical ability, technical preparation, environmental conditions, temperament, emotional regulation, coping resources, and learned psychological skills. Developing adaptive coping strategies can help athletes manage the challenges associated with competitive sport and may enable them to transform stress and adversity into opportunities for learning and performance improvement.

## **REFERENCES**

1. Abram, Z. (2024). How sport psychologists are helping Olympians in Paris. *Monitor on Psychology*. American Psychological Association.
2. American Psychological Association. (2022). *Sport psychologists help professional and amateur athletes*. American Psychological Association.
3. American Psychological Association. (2025). *Sport and rehabilitation*. American Psychological Association.



4. Carver, C. S., & Connor-Smith, J. (2010). Personality and coping. *Annual Review of Psychology*, 61, 679–704.
5. Dziuba, A., Ennigkeit, F., Gerber, M., Mühlenhoff, S., & Englert, C. (2025). The effect of stress, mental toughness, and their interaction on athletic and cognitive performance. *Psychology of Sport and Exercise*, 80, 102938.
6. Fletcher, D., & Sarkar, M. (2012). A grounded theory of psychological resilience in Olympic champions. *Psychology of Sport and Exercise*, 13(5), 669–678.
7. Gucciardi, D. F. (2020). Mental toughness: Progress and prospects. *Current Opinion in Psychology*, 16, 17–22.
8. Haan, R. de, et al. (2023). Coping strategies for handling stress and providing mental health in elite athletes: A systematic review. *Frontiers in Sports and Active Living*, 5, 1265783.
9. Nicholls, A. R., & Polman, R. C. J. (2007). Coping in sport: A systematic review. *Journal of Sports Sciences*, 25(1), 11–31.
10. Nicholls, A. R., Polman, R. C. J., Levy, A. R., & Backhouse, S. H. (2008). Mental toughness, optimism, pessimism, and coping among athletes. *Personality and Individual Differences*, 44(5), 1182–1192.
11. Pensgaard, A. M., & Duda, J. L. (2003). Sydney 2000 Olympic gold medalists: Vigorous mental preparation. *Sport Psychologist*, 17(3), 307–319.
12. Sarkar, M., & Fletcher, D. (2014). Psychological resilience in sport performers: A review of stressors and protective factors. *Journal of Sports Sciences*, 32(15), 1419–1434.
13. Tamminen, K. A., & Gaudreau, P. (2019). Coping, social support, and emotion regulation in teams. In *Handbook of Sport Psychology*. Wiley.
14. Uphill, M. A., Groom, R., & Jones, M. V. (2012). The influence of in-game emotions on soccer performance. *European Journal of Sport Science*, 14(4), 1–10.
15. Wagstaff, C. R. D. (2014). Emotion regulation and sport performance. *Journal of Sport and Exercise Psychology*, 36, 401–412.
16. Woodhead, C. J., Didymus, F. F., & Potts, A. J. (2024). Interpersonal coping in sport: A systematic review. *Psychology of Sport and Exercise*, 73, 102631.
17. Xu, J., & Hao, F. (2025). The role of personality traits in athlete selection: A systematic review. *Acta Psychologica*, 105478