

# SEABURY & PERFORMANCE

## SP MONTHLY

2024 3

SPORTING REVIEW

SCIENTIFIC INSIGHT

CONTENT HIGHLIGHTS

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# January

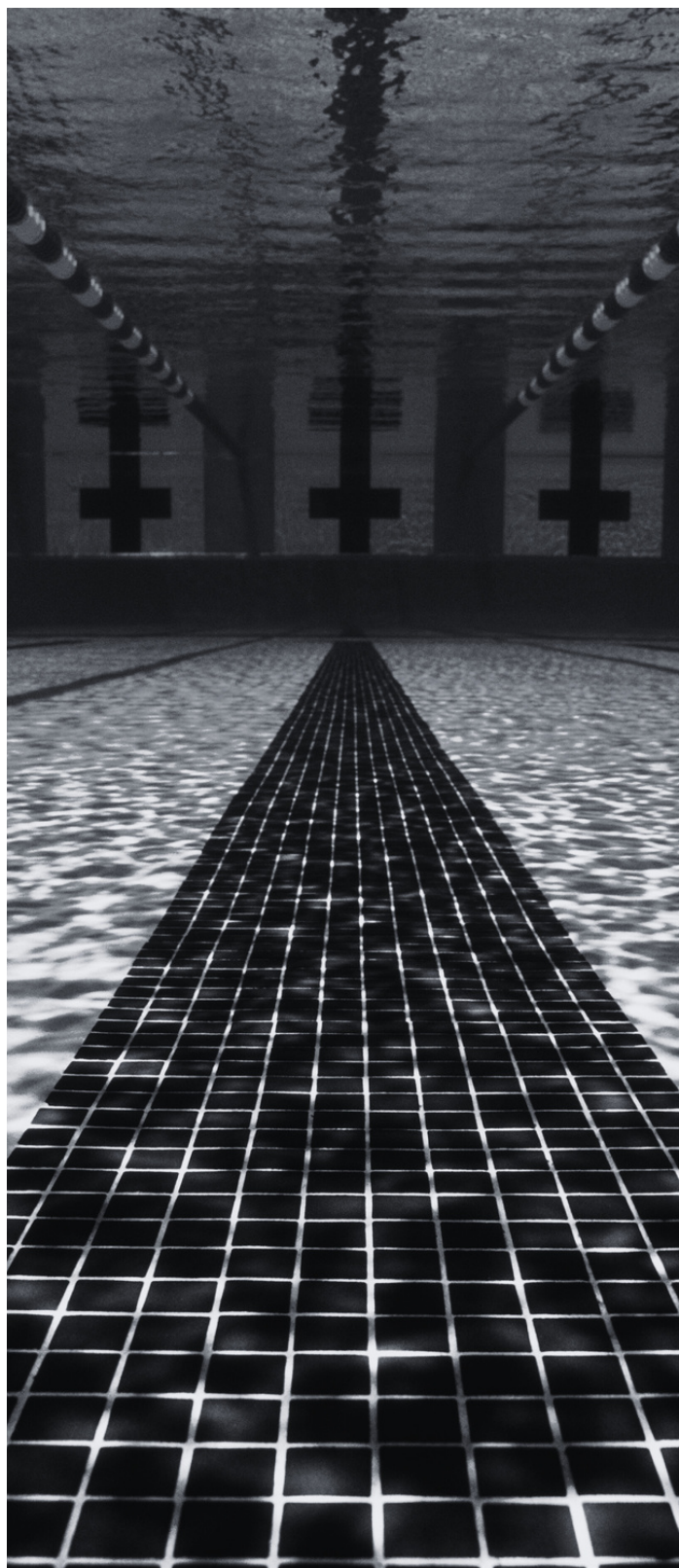
Performance Psychology and Mental  
Performance





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## MESSAGE FROM TOM

January marks a time when many of us reflect on the previous year and look forward to what the next year may entail.

We often reflect on events, years and efforts as successes or failures. However, success and failure in any endeavour are dynamic. They are ever-evolving aspects of our journeys, not definitive endpoints. The concept that success and failure are never final underscores the continuous nature of personal and professional growth.

Success can be a powerful motivator, validating hard work, dedication, and skill. However, understanding that success is not a conclusive destination is crucial. It serves as a stepping stone, prompting us to set new goals, refine our skills, and push our limits further. The evolving nature of success encourages us to embrace a growth mindset, viewing each achievement as a milestone rather than the ultimate pinnacle.

Similarly, failure is not an irrevocable verdict but an integral part of our learning process. When confronted with setbacks, we gain valuable insights, learn from mistakes, and discover areas for improvement. Rather than viewing failure as an endpoint, we can approach it as a temporary deviation from our path, a detour that presents an opportunity for recalibration and resilience.

The continuous development emphasises that success and failure are interconnected and interdependent. Those who recognise that both are transient phases in our journeys are better equipped to navigate the highs and lows with grace, tenacity, and a commitment to continual improvement.

*Tom Seabury*

DR TOM SEABURY



# REFLECTION: ENTANGLEMENT AND DISSECTION

Reflection is a common topic amongst athletes.

While athletes often find themselves entangled in a web of self-reflection post-match, this process often leans heavily towards scrutinising the negative aspects of their game.

While dissecting our performance, mistakes and areas for improvement regularly come to the front of our minds.

Reflecting on mistakes is crucial for growth, but this tendency to focus solely on the shortcomings can inadvertently overshadow the positive moments, even in defeat.

Recognising and embracing positive aspects, no matter how subtle, is integral to fostering a balanced and resilient mindset.

In the crucible of competition, we frequently face setbacks and losses, moments where the scorecard may not reflect the full tapestry of our performance.

In these instances, the importance of reflecting on positive moments becomes pronounced.

Even in defeat, we exhibit moments of brilliance.

Whether a well-executed shot, a display of sportsmanship, or a strategic decision that showcased our skill and determination, brilliance can come in many forms.

By intentionally directing our reflection towards these positive instances, we gain a more holistic perspective on our performance.

Reflecting on these positive moments, even in losses, serves a dual purpose.

Firstly, it contributes to a healthier mental outlook, reinforcing self-confidence and resilience.

Secondly, it provides a blueprint for continuous improvement.

By acknowledging and building upon what worked well, we can refine our strengths and approach future competitions with a reinforced mindset.





## BOOK OF THE MONTH - THE RISE OF SUPERMAN

The Rise of Superman by Steven Kotler takes readers on an exhilarating journey into the world of extreme sports, exploring the concept of "flow" and how it drives us to achieve peak performance. Kotler delves into the psychology and neuroscience behind the state of flow (a mental state characterized by complete immersion and focus), often referred to as being "in the zone."

Through a captivating narrative, Kotler introduces readers to a diverse cast of extreme athletes, from surfers and snowboarders to rock climbers and BASE jumpers, showcasing their extraordinary feats and the transformative power of flow.

The book draws on the experiences of these extreme athletes to illustrate how the state of flow can unlock superhuman abilities, pushing the boundaries of human potential. Kotler skillfully weaves together anecdotes, scientific research, and interviews to provide a compelling argument for the universal applicability of flow, not just in extreme sports but in various aspects of life.

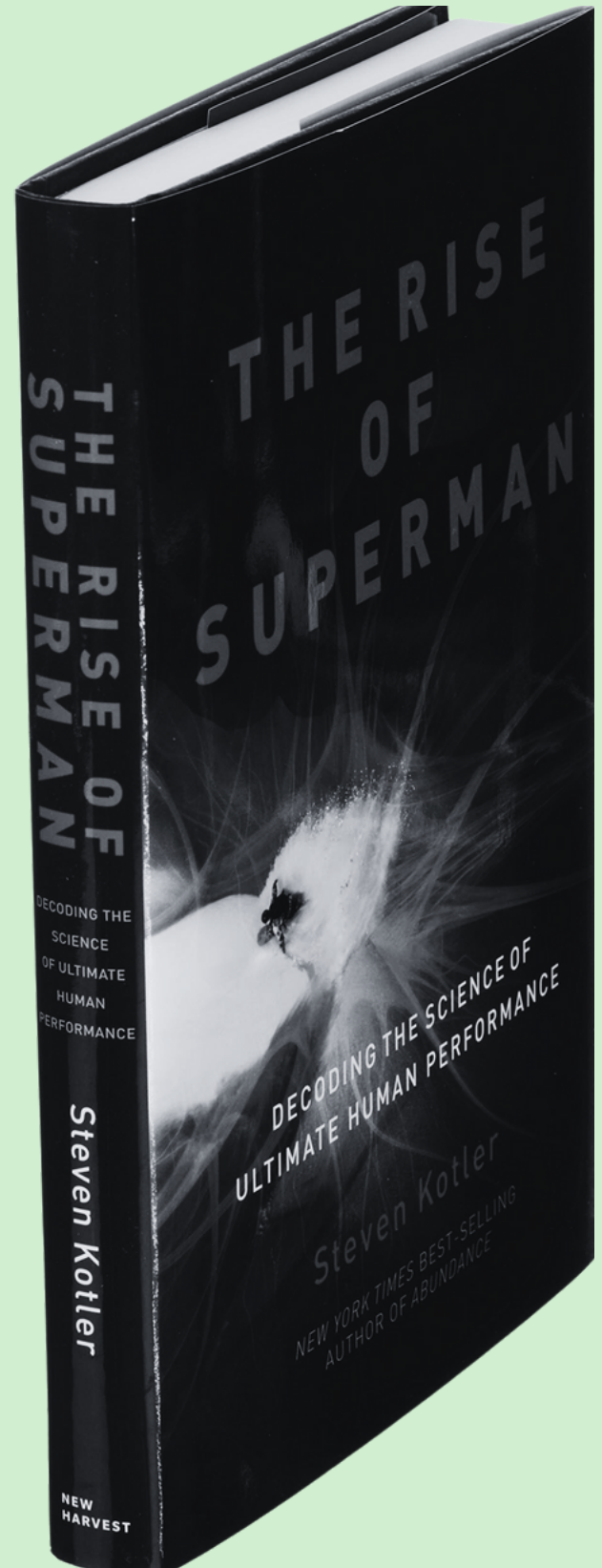
One of the book's strengths is its exploration of the neurobiology of flow, explaining how the brain undergoes specific changes during this heightened state of consciousness.

Kotler discusses the role of neurotransmitters, brain waves, and the autonomic nervous system in creating the optimal conditions for flow.

By demystifying the science behind the extraordinary performances of extreme athletes, he makes the concept accessible and relevant to a broader audience.

In conclusion, The Rise of Superman is a captivating exploration of human potential, offering valuable insights into the conditions that lead to extraordinary performance.

Whether you're an extreme sports enthusiast or someone seeking to unlock your full capabilities in everyday life, Kotler's narrative provides an engaging and thought-provoking perspective on the transformative power of flow.



BOOK BY STEVEN KOTLER



## **INJURIES: RETURNING TO THE ARENA**

A return from injury can be a challenging moment.

The first match back from injury represents a formidable psychological challenge, marking a crucial juncture in our physical and mental recovery.

After we endure the physical rehabilitation process, we must confront the mental hurdles of doubt, fear, and apprehension as we re-enter the competitive arena.

The psychological toll of injury often lingers as we grapple with concerns about re-injury, diminished performance, and the pressure to meet both personal and external expectations.

The fear of not being able to perform at pre-injury levels can be overwhelming, affecting our confidence and disrupting our mental resilience.

Our return to competition after an injury also demands a delicate balance between pushing our physical boundaries and respecting our body's limitations.

We may grapple with self-doubt about reclaiming our former prowess and have apprehensions about facing opponents who may exploit our vulnerabilities.

The challenge intensifies when considering the external scrutiny from coaches, teammates, and fans anticipating our return.

Athletes often work closely with psychologists, coaches and support teams to navigate these challenges, emphasising the importance of mental preparation alongside physical rehabilitation for a successful return to the competitive arena.



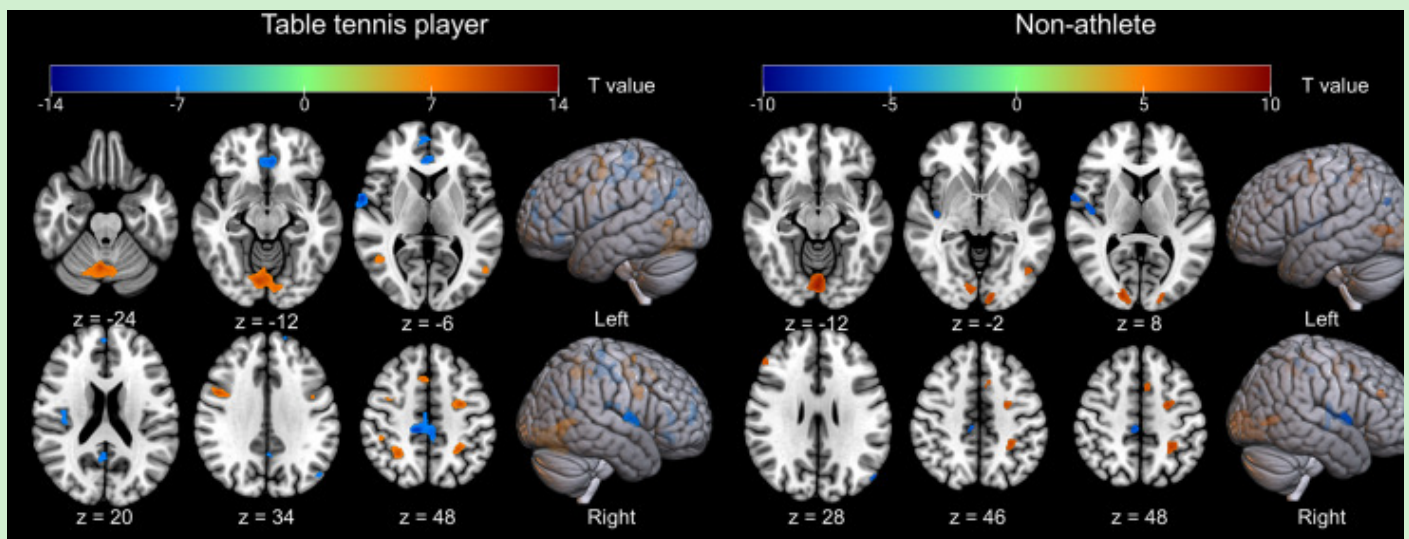
# TOTAL SLEEP DEPRIVATION REDUCES THE TABLE TENNIS ANTICIPATION PERFORMANCE OF YOUNG MEN: A FUNCTIONAL MAGNETIC RESONANCE IMAGING STUDY

Participants completed a table tennis anticipation task before and after 36 hours of sleep deprivation. Functional magnetic resonance imaging (fMRI) data were collected simultaneously. Table tennis players exhibited higher neural efficiency (reflected in increased anticipation accuracy and reduced frontal lobe activation compared to non-athletes). Sleep deprivation led to impaired anticipation performance in both groups, associated with decreased activation of the occipital and temporal lobes.

Table tennis players exhibited compensatory activation in the left hippocampus and the orbital part of the right inferior frontal gyrus (IFG) after sleep deprivation. In contrast, non-athletes did not show such compensatory changes.

The reduced accuracy of non-athletes was correlated with decreased activation in the orbital part of the right IFG. These findings contribute to the understanding of cognitive neuroscience mechanisms underlying the effects of SD on sport-related anticipation.

The findings of this study on the impact of sleep deprivation on sport-related anticipation, particularly the observed changes in neural efficiency and compensatory activation in specific brain regions, may have implications that extend to various sports. While the study specifically focused on table tennis players, the cognitive neuroscience mechanisms identified could be relevant to athletes across different sports.



Dai, C., Peng, Z., Wang, L., Song, T., Xu, L., Xu, M., & Shao, Y. (2023). Total sleep deprivation reduces the table tennis anticipation performance of young men: A functional magnetic resonance imaging study. *Iscience*, 26(10).

## NERVES- THE NORMAL PHENOMENON

The experience of nervousness before a sporting match is a common and entirely normal phenomenon deeply rooted in the intricate interplay of psychological and physiological responses.

Athletes (regardless of their skill level or experience) often grapple with a surge of nervous anticipation leading up to a competition.

This heightened state of arousal is primarily linked to our body's "fight or flight" response, an evolutionary mechanism designed to prepare us for perceived threats.

The nervous system releases stress hormones, such as adrenaline, triggering a cascade of reactions to optimise our performance in the face of a challenge.

This includes increased heart rate, heightened alertness, and improved blood flow to muscles – all crucial components for us to prepare to engage in a physically demanding activity.

Essentially, the body is gearing up to perform at its peak, leveraging the energy the stress response provides.

Psychologically, nervousness can be attributed to various factors, including the desire for success, fear of failure, pressure from expectations, or the competitive nature inherent in sport.

We invest time, effort, and emotion into our training, making the prospect of competition a significant event with potential consequences.

The anticipation of the unknown outcome, the presence of spectators and the competitive environment contribute to the heightened nervous state.

Moreover, this pre-competition nervousness is a testament to our investment and commitment to our sport.

It reflects a deep emotional engagement and a strong desire to perform well.

Acknowledging and understanding the normalcy of pre-match nervousness is crucial.

Rather than viewing it as a hindrance, embracing these feelings as a natural part of the sporting experience can empower us to channel that energy positively.





## SMART WATCHES - OUR NEW PACERS

Smartwatches such as Garmins and the Apple Watch have introduced a new dimension to the psychological landscape of running and cycling. These watches offer real-time data and insights that can both enhance and, in some cases, hinder the mental aspects of running.

On the positive side, smartwatches provide runners with immediate feedback on crucial metrics like pace, distance, and heart rate, empowering them to make real-time adjustments to their performance.

This instant feedback can boost motivation, as runners can witness their progress and accomplishments during a run, fostering a sense of achievement.

However, the psychological impact is not universally positive. For some runners, the constant stream of data may lead to performance anxiety or stress as they become hyper-focused on meeting specific targets or comparing themselves to previous achievements. The pressure to constantly optimise performance can potentially detract from the joy of running and the intrinsic pleasure of the sport.

Striking a balance between leveraging the benefits of smartwatch technology and maintaining a healthy mental approach to running is crucial. While research suggests that the impact of smart devices is overall positive on our performance and mindset, the psychological impact ultimately varies from individual to individual. This, therefore, highlights the importance of a mindful and personalised approach to incorporating technology into the running experience.

Starting study for extra reading:

Ryan, J., Edney, S., & Maher, C. (2019). Anxious or empowered? A cross-sectional study exploring how wearable activity trackers make their owners feel. *BMC psychology*, 7, 1-8.





## A STRUGGLING FOOTBALLER: THE LONELY EXPANSE

The football pitch can transform into a lonely expanse for a player grappling with a dip in form.

Even the best player can lose themselves on the field when they feel their abilities are out of their reach.

Amid a struggle, each step becomes laden with self-doubt, and the crowd's cheers can morph into a cacophony of pressure.

The isolation is not just physical; it's a mental and emotional challenge that can permeate every aspect of a player's on-field performance.

The weight of expectations, internal frustrations, and external scrutiny can converge to create a daunting atmosphere, making the pitch a challenging space for a footballer enduring a rough patch.

This is where the team's collective spirit can act as a powerful antidote to the loneliness that a struggling player may feel.

Teammates who foster a strong sense of unity and support create an environment where struggling players don't bear the burden alone.

A cohesive team dynamic becomes a source of solace and motivation for a player facing a downturn in form, whether through encouraging words, gestures of solidarity, or providing an empathetic ear.

Teammates who actively create a team bond contribute not only to the individual's well-being but also to the collective resilience of the squad.

Shared experiences, mutual understanding, and a sense of belonging can uplift struggling players, reminding them that they are part of a unified entity working towards a common goal.

In these moments, the pitch transforms from a lonely space into a shared arena where the team's collective strength becomes a powerful ally, helping players navigate the challenges and emerge from the struggles stronger together.



## QUOTE OF THE MONTH

**“Coaching done well may be the most effective intervention designed for human performance.”**

**Atul Gawande**

Coaching is a transformative and vital component of human interaction, holding the potential to better not only individual lives but entire communities. At its essence, coaching is a dynamic process where a knowledgeable guide, the coach, supports and facilitates the growth, development, and success of another person, the coachee. This relationship extends far beyond the confines of sports, as coaching is increasingly recognised as a powerful force in personal development, professional realms, and various facets of life.

A skilled coach can inspire, motivate, and guide individuals towards realising their full potential. Through active listening, empathetic understanding, and strategic questioning, coaches help individuals identify and overcome obstacles, set meaningful goals, and navigate the complexities of personal and professional challenges. The impact of coaching extends beyond individual benefits; it ripples through relationships, teams, and organisations, fostering a culture of collaboration, accountability, and continuous improvement.

Coaching has become integral to leadership development, enhancing employee performance, and cultivating a positive work environment in the professional arena. Effective coaching addresses skill development and nurtures emotional intelligence, resilience, and adaptive thinking. Coaching catalyses personal and professional breakthroughs by creating a supportive space for reflection and goal-setting, leading to increased satisfaction, motivation, and overall well-being for all involved.



# TRUST - THE FORGE OF SPORT

Any relationship between an athlete and their coach is a dynamic held together by mutual trust.

This two-way trust dynamic is at the core of successful athlete-coach partnerships.

On one side, athletes entrust their physical and mental development to the guidance and expertise of their coach/manager.

They rely on the coach's knowledge, experience, and insights to improve their skills, overcome challenges, and achieve success.

This trust extends beyond the technical aspects of the sport to encompass the coach's understanding of the athlete's strengths, weaknesses, and unique qualities that contribute to their performance.

Conversely, coaches trust athletes to implement training regimens, follow instructions, and exhibit dedication.

The coach relies on the athlete's commitment to the process, receptiveness to feedback, and ability to execute strategies on the field or court.

This reciprocal trust forms the bedrock of effective communication and collaboration.

Coaches must create an environment where athletes feel secure in expressing concerns, seeking guidance, and embracing the coach's feedback.

This open and trusting relationship fosters a positive feedback loop, propelling both athlete and coach toward continuous improvement and success.

The two-way trust dynamic is not only about achieving performance goals but also about navigating the inevitable challenges and setbacks.

When faced with adversity, both parties need this trust to forge a resilient bond that encourages perseverance, learning, and growth.

Without this forged trust, performances and relationships can crumble quickly when in the pressure cauldron of competition.







## FINAL THOUGHTS

The end of 2023 and the start of 2024 marks the yearly tradition of starting fresh. We look back at the progress and mistakes we made in the previous year while optimistically looking forward to what the future holds. January is often a month that sees us strive for improvement and attempt to start the year strong. While this is a positive outlook, it is equally important that we show ourselves empathy and compassion. We will experience bumps along the road to our goals, and they must be accepted and embraced.

This publication is in its infancy and is always looking to grow, expand and improve.

If you have topics you would like included in future issues or sections that would improve the reading experience, please let us know by visiting:

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