

PERFORMING IN THE 'ZONE'

ACHIEVING THE OPTIMAL PERFORMANCE STATE

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Elite athletes who have attained an optimal performance often describe their subjective state as having been “in the zone”. While difficult to assess or measure, the ‘zone’ or ideal performance state, it is often reported as being comprised of a balance of excitement and awareness, involving deep concentration and full immersion in the activity where athletes exhibit high levels of skill mastery, self-confidence and an automaticity of performance.

A similar concept to the ideal performance state is Csikszentmihalyi’s notion of flow. Csikszentmihalyi¹ described periods of flow as involving lower self-consciousness, centering of attention and resulting in greater intrinsic satisfaction. Importantly, flow experiences tend to occur when an individual is in a situation of perceived high challenge, but possess

the necessary skills and/or capabilities to successfully meet the demand.

Importantly, most elite performers feel that achieving flow is controllable. Many elite athletes have learned how to successfully achieve this state in order to perform to their potential as they approach peak events such as the Olympic Games and the World Championships for their sport throughout the competitive season and even to ensure they have achieved a sufficient level of readiness for each and every training session.

While achieving the optimal performance state can be difficult, and the approach that is best differs from one athlete to the other, there has been considerable research around the notion of how best to achieve one’s optimal performance state. Much has been learned

from many top athletes and coaches from around the world. Several factors have been found to promote having a flow experience including:

1. having high levels of confidence,
2. ensuring thoughts are constructive,
3. maintaining an appropriate focus,
4. ensuring precompetitive arousal and anxiety are optimal and
5. possessing high levels of intrinsic motivation.

CREATING THE OPTIMAL PERFORMANCE STATE

The case for personal reflection

As elite athletes develop, they gradually learn from their training and competitive experiences what has worked for them in order to perform at their best. As athletes continue their quest to automate their



performance towards becoming more consistent performers when it matters the most, many benefit from the use of training journals. Both training and competitive performances are debriefed in order to capture the learning regarding their mental and emotional states and related activity prior to and during their training and competitive performances. In fact, a recent study by researchers at the University of Groningen, Netherlands², found that those athletes that became senior internationals, scored highest on reflection during their junior years compared with those who only achieved senior national status. As such, the use of strategies such as journaling can assist athletes in learning about themselves as they continue their quest to becoming expert performers in their chosen sports.

Simulated practice

Being able to perform well under pressure relates well to the notion of flow in that situations of high challenge require athletes to acquire and perfect the skills needed to deal effectively with their performance demands. Too often an athlete's training environment does not adequately mimic the nature of their competitive situation. They can experience difficulty when performing, by becoming distracted by environmental factors (e.g. crowd noise, opponent's level of intensity and/or speed), interpersonal factors (e.g. gamesmanship, taunting, having the

performance judged etc) or intrapersonal sensations (e.g. higher levels of anxiety and/or arousal prior to or during their competition). Simulation can help the athlete to be ready for periods of adversity, ensuring that they will be less inhibited when such situations arise.

USE OF MENTAL IMAGERY

Creating a mental plan (simulating aspects of an upcoming performance) through mental imagery can prove very effective in fostering an optimal performance state prior to and during an athlete's performance. Performing the skills required perfectly within the mind can help to activate a network of neuronal coded programmes, which strengthen the nerve pathways within the brain that control the correct execution of the skill. Garnering images of past successful performances prior to an athlete's event/competition can keep confidence levels high and assist in lowering anxiety levels leading into the performance. Athletes should be encouraged to use all of their senses to create vivid mental images. This can include physical movement whenever possible to relate what is being imagined to the actions required to perform the skill.

Emotional regulation

The elite athlete is continually exposed to stressful stimuli that may evoke several emotional responses. Over time, the athlete must learn strategies to regulate their emotions so that they are managing their emotion (as opposed to being managed 'by' them) and thus learn to focus their attention on task-relevant cues within the competition environment.

Most elite athletes have acquired the discipline to ensure they are mentally prepared to perform on a regular basis. However, when their mental and physical preparation has been ineffective leading to a less than optimal performance, it is often the result of having performed inadequate or insufficient emotional preparation and management.

When a full range of feelings are triggered (e.g. fear, anger, frustration, excitement etc) and effective responses have been well-practiced, athletes can become emotionally inoculated and more ready to perform under the most emotionally challenging situations they can face. Emotional preparation is best done early on the day of the competition and athletes should be encouraged to become both aware of their emotions and to accept their feelings

unreservedly in order to eventually bring their attention to the task at hand.

More and more, various forms of biofeedback (e.g. heart rate, heart rate variability, respiration rate, skin temperature) and neurofeedback (measuring brain activity frequencies through electroencephalography) during training are proving beneficial for athletes wishing to develop effective responses to stress towards ensuring they can achieve an optimal performance state on demand. These interventions help to optimise the self-regulation of bodily functions for performance, especially when facing significant performance demands when athletes are most under pressure. They are also useful in assisting athletes to identify and manage their psychophysiology as part of creating the zone of optimal functioning.

Various technologies exist that directly measure various biological and neurological parameters and provide feedback to the athletes as they develop their skills/response. In a recent article by Beauchamp, Harvey and Beauchamp³, biofeedback protocols were used as part of Canada's Olympic Short-Track Speedskating Team's preparation for the 2010 Vancouver Winter Olympic Games. These were found to be very effective in preparing the athletes for their best performance by providing a systematic approach to the athlete's psychological preparation, competence and confidence as part of their overall preparations for the Games. While these tools have considerable practical significance in the training of the biological and neurological responses associated with stress, further empirical research is required to provide support for the efficacy of these interventions as part of a psychological training programme for athletes.

Pre-performance routines

Pre-performance routines include pre-competition (or training) routines, warm up routines, pre-event strategy review and actions an athlete will regularly do, physically and mentally, as part of their



preparation for an upcoming performance. Learned routines serve to focus an athlete's attention and trigger well-learned motor response, by eliminating distractions and transferring thoughts from task-irrelevant to task-relevant cues.

Hogg⁴ outlined several reasons why pre-performance routines were important:

1. They help athletes concentrate on the performance process more effectively.
2. They help athletes control the thought processes and avoid overthinking.
3. They help athletes focus on what they need to do and so reduce any distractions.
4. They help athletes adopt a more consistent approach to performance both mentally and physically.
5. They can help athletes increase feelings of self-confidence because they will feel they are "in control".
6. They can help to occupy the athlete during down times or waiting periods.
7. They can assist in keeping thoughts positive thus decreasing the potential for anxiety and worry that can result from thinking about an upcoming performance.

Better pre-performance routines often include some form of relaxation training. Athletes may engage in a short imagery session, where they visualise themselves during aspects of their upcoming performance and garner images of successful past performances to instill confidence for what lies ahead. Peak performance is related to the capacity to stay 'present' mentally. The first step on this path is self-awareness. When an athlete is performing, he should focus on the process by paying attention to his sensations, emotions and movements, reminding himself of his tasks, roles and responsibilities and by keeping his eyes focused on relevant cues and objects such as the ball and the opponents. By concentrating on the process goal of performance, the athlete will focus on the smaller tasks that keep him grounded in the present moment and help him to have better mental responses.

Mindfulness: performing in the present moment

Mindfulness can be thought of as a similar construct to flow as it involves being in the present moment and without judgment. Importantly, mindful meditation (the skillful training of being mindful) is

said to be essentially the practice of simply being in a moment without judgment. For athletes, mindfulness relates well to their capacity to immerse themselves in task-relevant cues during their performance.

American researchers conducted a study involving archers and golfers to explore the efficacy of mindfulness training on the athletes' ability to impact on flow states, as well as on a number of other psychological characteristics linked with enhanced performance. As a result of the mindfulness training intervention, the level of flow achieved by the athletes changed significantly over the course of the training, as did their ability to be in the present moment and not be carried away by thoughts and feelings they would have experienced during their performances.

The ability to direct one's attention and increase awareness of the present moment can be learned through various mindfulness meditation exercises. Mindfulness exercises encourage the athlete to engage in non-judgment awareness of their internal experiences occurring at each moment such as bodily sensations, emotions and cognitions, as well as to environmental stimuli such as sights and sounds. As they bring their focus of attention to the 'here and now', they must move their focus from becoming aware of their thoughts, feelings or external stimuli and then simply bring the focus back to the present moment without judgment of where their attention wandered. In the previously mentioned study, a mindful meditation training was conducted 6 days per week for 30 to 45 minutes per day.

When the athlete is performing, they should focus as much as possible on the process of their performance (a blend of conscious and unconscious thought) and be encouraged to be aware of their sensations (emotions, physiological activation etc) and at every opportunity, simply accept their thoughts and feelings and gently bring themselves back to the current task at hand. Athletes should also be encouraged to exercise mindfulness,

through focusing their awareness on aspects of the performance of their physical skills that previously had been outside of their conscious awareness (such as noticing how the athlete feels prior to or during the execution of a skill). In addition, athletes can bring their focus of attention on their breath when a specified environmental cue occurs, such as hearing the referee's whistle before shooting. These practical strategies can assist athletes in bringing their attention to the present moment as often as possible during their competitive performances.

“When the athlete is performing, they should focus as much as possible on the process of their performance”

CONCLUSION

There is little doubt that achieving the optimal performance state is of considerable importance for elite athletes. While several strategies have been offered, each athlete is encouraged to explore the various methods and approaches that work best for them given their personal traits, current abilities and the nature of their performance environment.

References

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