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Use of Hath Yoga and Raja Yoga techniques in modern sport and lifestyle

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Abstract

As the achievements of modern-day sportspersons keep on improving and sometimes seem to defy the laws of nature, the methodology of sports training is becoming ever more complex. It seems that in order to achieve good results in competitive sports, one needs to work on the whole person, not just the body but the thoughts, emotions and breath as well, to create a state of harmony that enables the sportsperson to perform at his best under pressure and express his full potential in demanding circumstances. Having this point in mind, it is not surprising that yoga is becoming increasingly present in the lives of the best athletes in the world today.

At present, two groups of yoga techniques are used in modern sport: the hath yoga techniques of asana and pranayama, and the relaxation and meditation techniques of raja yoga.

Keywords: Pranayama, hatha yoga, meditation, raja yoga

Introduction

Sports psychology and yogic techniques

Those sportspersons who perform well also manage their emotions in critical situations in a way that enables them to develop an ideal mental state allowing for maximum performance. During competition, if they fail to achieve this state, many athletes become victims of their anxieties, no matter how well they are prepared physically. In 1997, the performance psychologist, David Roland, defined performance anxiety as 'stage fright', suggesting artists feel apprehensive about approaching the stage and performing. Athletes may also suffer from stage fright and may experience a debilitating effect on their performance. In sports psychology this state is identified specifically as competitive anxiety, anxiety experienced while competing. 'Anxiety is classified under the umbrella of arousal phenomena, but it is typically associated with negative cognitive thoughts, such as worry or a perception of threat (thinking of earlier failures, for example). Sometimes even the prospect of winning a big competition can be just overwhelming. Anxiety is a complex behaviour that manifests in emotional, mental and physical dimensions.

In order to eliminate competitive anxiety, Phill Jackson, a nine-time winner of NBA league with Chicago Bulls and LA Lakers, uses meditation to help his players relax and focus by using their minds to relax their bodies. One of the techniques his consultant was using is based on the principles of mantra meditation. Players would repeat one word (here this word pertained to their performance, like 'precise'), not thinking about anything else, letting all other thoughts just pass through them. In this way, they managed to relax before matches.' Here we find the principle of mantra japa meditation, but without the use of an actual mantra. From our experience we can infer that if they had practised authentic mantra japa meditation with one of the universal mantras like Om or Soham, followed by a sankalpa of their choice, they would have achieved even more profound states of mental relaxation and focus, and the results would have been even better.

'The Zone' or 'The Second Wind' or 'The Last Burst' or 'The Flow'

From the yogic viewpoint, this is the most intriguing area in which yoga can play an important role in modern sports today. These terms are used to denote an alternate state of being in which the athlete taps into previously unavailable resources of the body and mind, and often reaches

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unexpected high, sometimes astonishing results. From the yogic point of view, this state is achieved by accessing vyanavayu, the reserve pool of vital force, making it freely available, and integrating fully not just the five pranas but the whole personality, the five koshas, into one harmonious, integrated unit.

A well-known fact is that the state of mind of the sportsperson is an important component of sporting performance, and who wins in the world-class sports today is determined more and more by the level of mental and emotional balance and control. As athletes are becoming more physically fit and equipped with more sophisticated gear, the final edge is achieved through the 'mental body'. At the highest level, the state of mind is the crucial factor that separates winners from losers. The ideal mindset enables the body to function automatically with little conscious effort. In this optimal state, complex tasks appear to be easily accomplished and subjectively time can either stand still or rush by as the performer is completely immersed in what he or she is doing. Sports psychologists often refer to this optimal mental state as 'the zone, the last burst or the flow'. For some athletes, performance in 'the zone' is achieved only once or a few times in their careers. However, with systematic training through sports psychology techniques, it is considered today that 'the zone' can be entered almost at will.

Theories of optimal performance

There have been two pioneers in sports psychology research, the Hungarian, Professor Mihalyi Csikszentmihalyi, who introduced the concept of 'flow state' in 1975, 4 and the Russian, Professor Yuri Hanin, who proposed the 'zone of optimal functioning' theory in 1980. The concept of flow entails a state in which there is a perfect match between the perceived demands of an activity and the abilities of the performer. During flow, a performer loses self-consciousness and becomes completely immersed in the task at hand. This leads to a state in which performance in itself becomes pleasurable and intrinsically gratifying. Hence, Csikszentmihalyi refers to flow as being an autotelic experience. The term autotelic is derived from the Greek word 'auto' which means self and 'telos' which means end. Hence, an autotelic experience is one which is an end in itself or intrinsically rewarding. The concept of autotelic experience serves to highlight the need for emphasis on the enjoyment one can derive from participation rather than extrinsic rewards such as medals trophies and public recognition.

From this statement, inference to attitudes of karma yoga is obvious: do your best, find contentment in the action itself and leave the rest to fate. Hence, we can conclude that one of the most investigated psychological theories in sports today, 'the zone', is firmly rooted in principles of karma yoga. Psychologists are trying to make sportspersons behave in a competition in the same way Sri Krishna was instructing Arjuna to proceed on the battle of Kurukshetra.

Hanin's theory is slightly different as it states that each athlete has an optimal zone of anxiety at which he or she performs at his peak. If an athlete's anxiety leaves this zone, performance levels will invariably decrease. Prof Hanin, who leads the Finland Research Institute for Olympic Sports, has published a great deal of empirical evidence to support his theory.

One new physiological theory, published in the British Journal of Sports Medicine, trying to explain this alternate state of being is 'endocannabinoid hypothesis', a suggestion that the physical and psychological wellbeing experienced by many endurance athletes is due to the exercise-induced

activation of endogenous cannabinoids. These are lipids whose actions in the body resemble those of the active constituent of cannabis. These substances are reported to reduce inflammation and pain, reduce anxiety and enhance perception and a sense of wellbeing, act as vasodilators and bronchodilators and are possibly capable of inducing the refinement of movements needed for coordinated locomotion.' On the other hand, Dr Costas Karageorghis, head of sports psychology at Brunel University's Department of Sport Sciences, classified the following psychological methods that are expected to help sportspersons to enter 'the zone'. We will look at each one of them and correlate them with well-known yogic practices.

Eleven techniques to attain an optimal psychological state

1) Asana

In training schedules asanas are used to evenly stretch and coordinate all muscles in the body, since in many athletes certain muscle groups are emphasized to the neglect of others, and misalignment and later postural imbalances tend to occur. Relaxation asanas help recovery and restoration of the tissues and the whole body, and benefit the cardiovascular, neuromuscular and lymphatic systems, especially when combined with abdominal or yogic breath, during which the circulatory mechanism of the thoracic pump is enhanced.

A third group of practices beneficial for athletes are balancing asanas. They improve coordination and balance, and fine-tune precise motor skills that are so precious in modern sport. Improved body awareness achieved through yogasanas reduces risk of injuries and increases biomechanical efficiency — the movements become even more precise, purposeful and economical, due to the flow of neural impulses in the nervous system which is optimized.

2) Pranayama

In modern sports the current view on the importance of training in proper breathing is that there is a strong link between the following four areas of the human body-mind system:

- Effective breathing technique — needed to ensure more energy for the working muscles through better
- Metabolic action at the cellular level
- Physiology
- State of the mind
- High performance of the body.

Therefore, it has been recognized that breathing is the major energy supplier to the body, that the quality of breath influences all physiological and mental processes in the sportsperson, and that its impact on the performance is immediate. Breathing correctly, both exhaling and inhaling, is critical in maintaining the appropriate level of oxygen for energy, keeping the correct pH levels in our body and maintaining the correct carbon dioxide level for bodily functions during exertion. The main work phase of the movements should be done during the exhalation phase of the breathing process, and inhalation is the proper preparation for this. So, the better we breathe, the better we perform.

3) Centering — manipura shuddhi (power, performance, ambition)

Centering is an attention control technique, which helps to calm athletes and make them focused at critical moments during their sport. It is used typically in sports which involve repeated breaks such as volleyball (during side-outs), and

tennis (in between games and sets). Centering can also be useful at the start of a short duration event such as a 400m sprint or a downhill ski race.

The athlete is instructed to begin by standing with the feet at shoulder width and arms at the side. The athlete should breathe deeply using the diaphragm and exhale slowly. On breathing in, the athlete focuses the attention on the area behind the navel. He or she will notice that on each inhalation, the tension in the upper body increases slightly, while on each exhalation, there is a calming, sinking feeling. Once mastered, it is said that centering is a quick and effective way to attain calmness and counter the destructive effects of over-arousal.

4) Mental rehearsal — visualization

Psychologists believe that creating a mental blueprint for success is one of the best ways in which to enter 'the zone'. Athletes are encouraged to practice key aspects of their sport in their mind's eye, both prior to competition and, given the opportunity, in breaks during competition. Britain's top 400m runner, Ivan Thomas, sees himself running the perfect race before he approaches the starting line. This is one of the ways in which he manages to maintain consistently high level performances. Michael Jordan, famous basketball player, said he was using visualization throughout his career. He visualized how many points he would score, in which way, how he would feel, absolutely everything.

5) Error parking — wiping them off with antar mouna

Sometime smoking a silly mistake or getting frustrated in competition can lead to a complete loss of concentration and low performance. To regain a state of flow after an error, athletes are advised to 'park it' by using certain ritualistic behavior, wiping it away on their shorts or on the equipment. Parking an error is a way in which the error is supposed to be forgotten, to enable athletes to focus on the here and now, freed from frustrating and debilitating thoughts and feelings that usually follow a mistake.

The control of anger and frustration is an important lesson, and all yoga techniques, by developing awareness, will contribute to this aim. Specifically, if the sportsperson has been practising antar mouna up to stage 3, he will be able to discard at will negative thoughts and feelings after a mistake during competition, and regain his composure and focus.

6) Losing self-consciousness — pratyahara, dharana, sankalpa

Many athletes report that they become distracted by the presence of spectators, officials and other competitors. The anxiety provoked by onlookers at competitions is induced by a natural fear of evaluation. Sports psychologists devised several strategies for coping with this tendency, and for each one of them we can find equally or more efficient yogic equivalents.

Athletes are encouraged to channel all their attention into performance, to ensure that their capabilities are maximized. But how to do this? Apart from good advice, psychology does not offer much in terms of tools. A very effective way to learn to direct awareness to only one point is by practices of dharana such as trataka.

7) Using keywords — symbols in yoga nidra, positive conditioning

As well as using self-affirmation statements, the use of keywords to reinforce what it is that the sportsperson is trying

to achieve is an important part of an armory of sports psychology techniques. For example, the world champion Britain's canoeist, Steve Harris, uses the phrase, 'Keep it smooth' to emphasize the smooth entry of the paddle into the water. Many golfers report using a thought just prior to striking the ball such as 'fluid', 'relaxed' or 'loose'. Athletes are encouraged to find the one word which encapsulates the essence of what they are trying to do and to use it at critical times just to become completely focused on what they should be doing. Hence, sprinters may use 'explode', swimmers may use 'glide' and cyclists may use 'spin'. We can construe that this kind of useful conditioning can be achieved beforehand, at a much deeper level, through the pratyahara technique of yoga nidra, with the use of appropriate symbols for visualization to awaken these desired psychophysical qualities at deep levels of the personality. We could expect that these qualities would express themselves more consistently during competition.

8) Self-hypnosis — pratyahara

Self-hypnosis as sport-c. Psychologists call it, is said to be an effective way of calming pre-competition nerves by promoting activation of the right hemisphere of the brain (ida) and limiting the conscious mental activities of the left hemisphere (pingala). Thus, this technique has a prophylactic effect against the disruptive influences of cognitive anxiety and negative self-talk. Prof Csikszentmihalyi contends that 'flow' or 'the zone' is a 'semi-hypnotic state'. In a sporting context, he sees self-hypnosis as taking control of oneself so as not to be vexed by the demands of competition. It brings a calm and relaxed state, and simply involves focusing attention on one thing at a time. For example, one could focus on the regularity of breathing and concentrate on breathing slowly from the diaphragm (the yogic abdominal breathing). Here we actually find reference to the abdominal breathing practice, used as a relaxation and simple pratyahara technique in order to ease the tension by disassociating mentally from the disturbing influence of the outer environment, and from distracting thoughts within oneself. Alternatively, one could focus on the area behind the navel, what is essentially the awareness of manipura chakra and helps to develop and establish a sense of balance.

9) Pre-event routine — visualization of a timeline

Being in control of the three minutes just prior to the start of the competition is absolutely essential. For this purpose, athletes are instructed to write down their pre-event routine, indicating what they do, what they are thinking and how they should feel in the hours and minutes leading to the competition. Such routines involve the following checkpoints:

- What is eaten and how long before competition it is consumed;
- What is packed in the kit bag;
- What mode of transport is to be used;
- How long before competition to arrive;
- What are the reporting-in procedures;
- What exactly does the warm-up routine consist of;
- What will the psych-up consist of, such as the use of imagery, self-statements, music;

10) The 'Winning Feeling'-Recollection of previous events in yoga nidra

Sports psychologists ask athletes to think about their most successful performance ever, encouraging them to mentally see themselves performing (what were they wearing, who

were they competing against, what was distinct about their movements, and so on). It is important for them to recreate exactly how they felt inside during their best performance and to write down every detail so that this feeling can hopefully be recreated at will. For some athletes, time speeds up when they are performing at their best and the performance is over before they really have a chance to appreciate it. For others, time slows down and they feel as if they have all the time in the world to perform. Either way, psychologists believe that the winning feeling is a unique experience which, once identified, can be recreated at will.

11) The power of sound — mantra *Om*

Music has the ability to inspire, motivate and relax the competitive athletes, and is being used more and more as part of the pre-competition routine. Having in mind that sound vibrations influence the human being in a tangible way, we can infer that athletes would benefit from chanting the universal mantra *Om* prior to competition — it would help them eliminate psychological pressure and worldly thoughts of anxiety, and bring about the integration of all levels of their being, the five koshas, ensuring their best possible performance at any given moment. World tennis player, Novak Djokovic, demonstrated in front of TV cameras the chanting of *Om* that he uses to relax and focus his mind. All sounds are vibrations. They give rise to definite forms and shapes. Modern science describes certain experiments which show that notes produced by certain instruments trace out definite geometrical figures on a surface of sand. It is thus demonstrated that rhythmical vibrations give rise to regular geometrical figures. Mantras are not ordinary words. They are considered to be a manifestation of divinity encased within a sound structure. Thus their vibrations tune us into the higher reality, the higher self. Mantra is divine power manifesting in a sound body. By the repetition of mantra the mind becomes not only one-pointed and calm, but also capable to access the dimension of the higher reality, the dimension of infinite energy and consciousness. For the sportsperson it would be a means of bypassing the lower mind and its tendency to draw one back.

Conclusion

In future we expect some deeper and more concrete experiments and research to be done with yoga and athletes. The human body has its genetic, evolutionary limitations. In spite of technological advances in the methodology of training and the production of ever more sophisticated equipment, the physical body of modern sportspersons is approaching its anatomical and physiological pinnacle in performance. There is not much scope left for improving the human body to achieve more and higher results in sports. However, the human mind has not yet been explored and used properly and fully in this field, or in any field of human life for that matter. The fast developing field of sports psychology is making first steps towards a better understanding and use of the power of the mind over the body. In this process, yoga can be seen as an invaluable source of knowledge and provider of know-how.

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