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Sport Psychology: The Psychology of Athletic Excellence

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OUTLINE

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Glossary

Athletic excellence: An athlete's (or team's) exceptionally good performance process and outcomes compared with the previously achieved standards (self-referenced or normative).

Athletic excellence reflects an athlete's (or team's) ability to perform consistently up to one's potential by recruiting and utilizing effectively available resources to match the demands of a task at hand. Personal excellence reflects a high level of ability to function effectively as a human being in and outside sports setting across the life span.

Resources: Psychobiosocial (cognitive, affective, motivational, bodily, behavioral, operational, communicative) assets determining an athlete's ability to performance consistently up to one's potential.

Experiences: The totality of past and present characteristics that makes up the particular quality of a person's performance. Performance related experiences are reflected in situational states, relatively stable patterns (traits, qualities), and meta-experience (self-knowledge, attitudes, preferences/rejections of one's experiences).

Sport Psychology: A subdiscipline of psychology that deals with "psychological foundations, processes, and consequences of the psychological regulation of sport-related activities of one or several persons acting as the subject(s) of the activity" (FEPSAC Position Stand, 1995).

ABSTRACT

Sport psychology is a subdiscipline of psychology applied to a competitive sport as a specific context of organized physical (motor) activity. Competitive sport is focused on high achievement and consistent excellence in contrast to other settings where exercise is used for physical education, leisure, or for rehabilitation. The major emphasis in sport psychology is on the study and application of psychological factors enhancing athletic performance and on the impact of sport participation on person's (or team's) development.

I. INTRODUCTION

A. Defining Sport Psychology

What is sport psychology? How is it different from other subdisciplines of psychology? How is it related to sport sciences? Although many definitions of sport psychology have been suggested, there has been no comprehensive and internationally accepted definition of sport psychology. In its Position Stand # 1 (1995), the European Federation of Sport Psychology (FEPSAC) proposed that "sport psychology is concerned with the psychological foundations, processes, and consequences of the psychological regulation of sport-related activities of one or several persons acting as the subject(s) of the activity (1995, p. 4)." This definition indicates that sport psychology attempts to improve athletic performance and help athletes to concentrate better, deal effectively with competitive stress, and to practice more efficiently. Moreover, sport psychology also attempts to understand the impact of long-term sport participation on development of personal resources of athletes in the setting of organized competitive sport. The term sport is used as an umbrella term that includes different kinds of sport, exercise and other physically active pursuits. These types of physical activity are also used in other settings such as organized

physical education, leisure, and rehabilitation (healing). Another important feature of sport psychology is its “double nature”. On one hand, it is a part of psychology; on the other hand, its knowledge base is related to sport sciences focused on understanding human activity in this particular context. Thus in applications, these two sources of knowledge help to better understand a person, the environment, and the key aspects of the sporting activity.

The major focus of this paper is on the context of competitive (high-achievement) sport. From this perspective, sport psychology examines mainly the short- and long-term impact of psychological factors on athletic performance and the potential effects of systematic participation (involvement) in sport. Applied sport psychology attempts to solve specific practical problems by improving athletic performance and thus helping athletes to develop their potential in sport setting.

Our paper briefly reviews selected aspects of applied sport psychology within the framework of three basic constructs: *athletic excellence*, performance related subjective *experiences*, and individual *resources* (psychological strengths). The key aspects of athletic performance are examined from the short-term (readiness for competition and performance excellence) and long-term (consistent excellence, career development) perspectives.

B. Major Focus and Trends in Sport Psychology

What are the major focuses in sport psychology research? What are main trends in applied psychological work with athletes, teams, and coaches? Noteworthy are two major focuses in sport psychology research with two corresponding trends in applied work. The first focus is on understanding the psychological factors that affect athletic performance and on how athletes realize their potential in sport. Applied aspect here includes “high quality

practices”, “optimal performance”, and “adequate recovery” at the level of an individual athlete and team. The second important objective of sport psychology is to understand how athletes develop in sport and what are the “benefits” and “costs” of their multiyear sport participation. Applied aspects here include a need to help an athlete to cope successfully with career transitions, and find a balance between sport and other spheres of life. In team sports, this also involves dealing with team building issues and helping individual athletes to find a balance between individual and team interests and values.

In competitive sport, applied psychologists deal with healthy, motivated, and high achievement oriented people striving for consistent excellence and performance up to their potential, and continuous self-development. Thus the focus on enhancement of athletic performance and empowering approach reflect a positive, proactive, and constructive nature of applied sport psychology. Interestingly, Seligman & Csikszentmihalyi (2000) called upon applied psychologists to move beyond studying psychological disorders and problems and spend greater efforts studying positive psychology that can be used to facilitate and enhance human functioning. This emphasis on positive psychology or psychology of human resources and strengths (Aspinwall & Staudinger, 2003) is not new in sport psychology as that is what sport psychologists have been doing for the last 25 years (Gould, 2002, p. 137). However, there is still an urgent need to attend to current concerns of athletes and coaches and examine more closely their successful experiences by bridging the gap between group-oriented and individualized approaches. Therefore it is argued that sport psychology is the psychology of personal and athletic excellence and as such from the very beginning was oriented to identifying person’s resources (strengths) to facilitate consistently successful performance up to one’s potential.

C. How sport psychologists work

Who are applied sport psychologists? What are they doing and how and why they are working with athletes, teams, and coaches? These questions are important for understanding of what sport psychologists can and can not do in competitive sport.

First, sport psychologists as a professional group represent experts with different backgrounds. There are clinically oriented and educationally oriented consultants, mental trainers, applied researchers specializing in performance enhancement, social or personality psychology. However, whatever is their specialization, applied sport psychologists are usually required to be well versed not only in psychology but also in sport and sport sciences. This helps them significantly in establishing and developing the working relationships with individual athletes, teams, coaches, parents, managers, etc.

Second, it is well known that the science of coaching focuses on the use of general principles. The art of coaching is recognizing when and how to individualize these general principles” (Weinberg & Gould, 1999, p. 15). Similar to coaching, the practice of applied sport psychology is a science and an art at the same time. As a science, it is based on various theoretical models and results of empirical studies describing what is typical for athletes in particular sport situations. As an art, sport psychology is grounded in the personality as well as personal and professional experiences of the consultant, and it is expressed in his or her ability to understand the particular athlete within a psychological context and to choose the most effective applied approach or intervention. That is why different consultants may work differently with the same athlete and be equally successful.

Art and science aspects are sport psychologist's tools to help athletes and coaches, who often focus mainly on the symptoms or consequences of the psychological problems, to deal with real causes the problems (challenges, task demands).

Third, there are certain organizational working models, **assessment** technologies, and interventions based on specific ethical norms that characterize how sport psychologists work. For instance, sport psychology research and effective delivery of psychological services to elite athletes and coaches usually focuses on two closely related aspects: (a) performance enhancement in practices and competitions, and (b) optimization of interpersonal and intragroup communication, creating optimal team climate and effective management. Sport psychologists use several guidelines or principles to enhance their work. These include action- and growth-orientation; an emphasis on developing individualized strengths rather than on repairs of deficiencies; empowering athletes, coaches and teams rather than developing over-dependency on outside experts; enhancing active participation, partnership, and cooperation between sport psychologists, athletes, and coaches.

Briefly described, working with an elite athlete or coach usually includes several action-oriented steps: (1) Listening to the coach and athlete's account of the current situation and past performance history to identify their concerns that need to be addressed; (2) Providing a general summary of how similar situations are usually handled in sport and suggesting a tentative plan of joint work on the problem at hand; (3) Collecting the data and providing a detailed feedback with the interpretation of results using the context-related language clear to the athlete and coach; (4) Preparing an action-plan for further analysis, change, and monitoring of the key parameters involved; (5) Evaluating of the effectiveness

of the initial steps and the developing of an individualized intervention program with clear criteria to assess athlete's progress on a daily, weekly, monthly, or a season basis; (6) Systematic contacts (by phone, e-mail, fax) between an athlete, a coach, and a sport psychologist are an important part of their work during the entire season. A wrap-up "lessons learned" session is also a good way to summarize experiences of all participants by the end of the season. It is important to realize that this approach is different from the traditional role of an outside expert telling the client what to do or not to do. Sport psychologist's main task is to empower an athlete and a coach via an individualized approach focusing on their strengths and success related experiences rather than on deficiencies and limitations.

II. Competitive Sport as High Achievement Setting

A. Sport and Competition

What is an athletic competition? Why is it so important in sport? These questions relate to the psychological characteristics of sport and to social psychological contexts of competitions.

Sport as a part of the world and a national culture is also a human activity where people find, realize, and further develop their individual potentials. Organized competitive sport is characterized by a clear focus on high achievement, exceptional level of skills, enhanced working capacity supplemented by health, well being concerns and prevention of injuries. However, the key aspect in understanding the psychology of high achievement sport is **competition** as a social comparison process.

The essence of sport competition is an evaluation and a social comparison of athletes according to the specially developed and approved rules. Observable competitive

performance is a process of delivering sport results by athletes or teams. Usually, judges measure results in competitions and on the basis of the comparison between the participants rank each athlete. Besides, athletes often use self-referenced (process- and/or outcome oriented) criteria to interpret their results in terms of personal success or failure. To demonstrate athletic excellence in competitions, athletes have to practice regularly and to develop continuously their resources. Both practices and competitions contribute to the development of athletes' physical and mental competencies and skills required in a chosen sport event. However, only participation in competitions allows the athlete to demonstrate her excellence in public and thus to win a social recognition and prestige.

Rules of competition in different sports create three distinct psychological contexts for competing athletes: a) "one-by-one" performances (with no physical or psychological contact between opponents during performance); b) "one-near-one" performances (with only psychological contact between opponents); c) "face-to-face" performances (with both physical and psychological contacts between the opponents during performance). Each of these contexts creates specific challenges for athletes and requires specific resources to cope with task demands. Moreover, a competitor can be either an individual athlete or a team. Sport team has specific structural and dynamic features (values, cohesion, communication, leadership). Group processes can either expand or drain individual resources of team members thus affecting the quality of practices and achievement level in competition (see **Group Dynamics**).

Since the beginning of the modern Olympic movement in 1896 sport has been developing immensely. Contemporary sport has become an international phenomenon and also a part of the world business. Increased mass media involvement has turned international

competitions into prestigious social events where athletes often feel under high pressures from the social environment. The intensity of competition in high-achievement and professional sports has increased dramatically and in many sports a current level of results is close to the natural limits of human abilities. All this explains increased role of psychological factors in contemporary sport creating a challenge for applied sport psychologists to develop effective approaches in helping sport participants.

B. Individual and Team Excellence

What is an athletic excellence? How is it related to the individual athlete and to the team? Is team excellence simply a sum of individual excellences? How do athletes in team sports find a balance between individual and team goals?

Athletic excellence is defined as an athlete's exceptionally good performance compared with the previously achieved standards. The standards of performance can be self-referenced and based on a particular athlete's record of achievements and performance history. In contrast, normative standards reflect performance levels of other top performers (for instance, top ten) in a particular sport event. In both cases, the indicators of athletic excellence are results (outcomes) achieved and the quality of performance process (task execution). Athletic excellence is an indicator of athletes' ability to perform consistently up to their potential by recruiting and utilizing effectively available resources matching the task demands. On the other hand, the notion of personal excellence reflects a high level of ability to function effectively as a human being in different settings including sport.

Depending on the type of sport activity, athletic excellence can be individual (demonstrated by an athlete) or a team (or collective) excellence (achieved by a team). Although team excellence depends on individual contributions, it is often not equal to a

sum of individual performances. Therefore a team, composed of the “star” athletes, does not always demonstrate team excellence, whereas average players working for the team and sharing team values and high work morale, can reach outstanding team excellence.

Research (Caron, 1998; Hanin, 1992) shows that team excellence requires not only individually outstanding performances but also adequate interpersonal and intragroup communication. These communication processes reflected in team’s values, norms, leadership processes can provide substantial support for some unique resources of team members and compensate for the lack of other resources.

To achieve a collective excellence, it is important to find an adequate balance between athletes’ individual goals and the team goals. These goals usually overlap but they often do not make a perfect match. However, a coach should realize that the degree of this match or mismatch between individual and team goals would result in a balance or imbalance between cooperation and competition processes in the team. Specifically, higher overlap (a match) between individual and group goals provides better cooperation between teammates, whereas a lower overlap (a mismatch) will result in more competitive behaviors and between the players (for example, for starting-up positions, playing time, etc.). To find an adequate balance stimulating athletes to develop their individual excellences and at the same time - to contribute maximally to the team is one of the key issues for coaches.

Another important factor for developing a collective excellence is to identify individual resources and strengths of the players, to give the players clearly formulated and interrelated roles as the components of specific tasks. Each task is perceived as *a challenge*, *a routine*, or *a risk* (Hendry & Kloep, 2002) depending on the perceived relationships between the task demands and available resources (individual and team). When resources

and task demands match each other, the team has *a set of challenges*. Successful coping with challenges results in the development of available resources. However, if available resources exceed the task demands, the task may be perceived as too easy or *routine* not requiring recruitment and effective utilization of resources. This may lead to a boredom and low task involvement. Finally, if the task demands exceed available resources, then the task is perceived as a threat and *a risk* (of failure).

The distinction between challenges, routines and risks is important to understand the players' (and team's) development. The lifespan model of developmental challenge (Hendry & Kloep, 2002, pp. 32-37) holds that *development* happens any time when the "pool" of potential resources is added and resources are strengthened. By contrast, *stagnation* describes a condition in which no new resources are added to the "pool" or they are not strengthened. Finally, a developmental *decay* in an individual or a team performance is expected if the task demands exceed the potential (available) resources, and thus drain the "pool" ceaselessly. The task of the coach then is to create specific challenges for an athlete (or a team), which would stimulate the effective recruitment, utilization and development of existing resources (strengths).

C. High Quality Practice

How much time athletes have to spend in practice in order to achieve athletic excellence?

What is the difference between the high and low quality practice? The major focus in sport psychology since the late 1960-s was on successful and poor performances in competitions.

Although competitive stress is still a popular topic of research, however, it is clear that excellence in competitions depends on how much and how well athletes practice. Research shows that top performers typically engaged in 10000 hours or 10 years of deliberate

(effortful) and sometimes non-enjoyable preparation to become experts in their domain (Eriksson, 1996). Although becoming an expert does require a lot of hard work, experts need also high quality practices. Moreover, it is important to realize that there is a time limit of what is possible to achieve in quantity-oriented practice, whereas quality-oriented practice is limitless.

High quality practices have several important features. First, they require high level of an athlete's self-awareness of individual strengths and limitations, of optimal emotional states, bodily signals. An athlete should know how to recognize and monitor this working state during the entire practice and how to recover effectively. Moreover, each training session should have a special meaning for an athlete related to a long-term perspective of the season goals and specific tasks. As a female alpine skier mentioned, "now I train differently. I focus thoroughly for each down hill race in practices. I know exactly what I want to achieve and I know what I am working on. It makes much more sense in what I'm doing now. Before I just did it, too often mechanically practicing different movement patterns". This athlete created a mind-set for a task that matched her resources and these challenges helped her develop as an athlete and a competitor. Now she was able to learn from every practice more about herself and how to use her resources (skills) under different conditions.

Another important feature of high quality practices is a simulation of specific competition conditions (time, competition rhythm, organization, track profile). Learning to focus on one's own game is another important characteristic of effective pre-competition simulations. If practices during the competitive season are more directly related to competition tasks, they serve well as a more focused preparation for competitions. On the

other hand, lessons learned in competitions provide useful ideas for more effective practices. Especially important are high quality practices during a competitive season (training between and during several competitions). Basically, the focus of high quality practice is on recuperating, improving and further developing one's physical, technical, tactical and psychological resources. Such an approach is especially relevant in professional sport, for instance NHL ice-hockey players usually play over 80 games during the season. The players do not have time for much practice and it is not too uncommon that skills of these talented performers begin to deteriorate. Thus consistent athletic excellence requires the conservation of available resources (physical, technical, tactical and psychological strengths) through their recruitment, utilization, recuperation, and on-going development.

III. PERFORMANCE ENHANCEMENT

A. Performance Related Experiences and Athletic Excellence

What is the difference between peak, optimal, and sub-standard performance? What are the optimal and dysfunctional experiences accompanying athletic performance? How do athletes develop competitive experiences?

As mentioned above, athletic excellence is an athlete's (or team's) extended period of exceptionally good performance that exceeds previously established or situationally acceptable self-referenced standards. The usual level of one's performance provides the frame-of-reference for defining both individually successful ("optimal" and "peak"), less than successful (sub-standard, below average, plateaus), and poor performances (choking and **slumps**). Peak performance is a metaphor to describe an ideal (outstanding, desired) performance. In contrast, optimal performance is the greatest degree attained (or attainable) under implied or specified conditions (e.g., skill level, health status, opponents, weather

conditions, competition site, etc.). Optimal performance is evaluated using the individualized (self-referenced) criteria based on an athlete's past performance history and present performance status. From this perspective, any athlete can attain an optimal performance whatever her skill level is.

Athletes' behavior and subjective experiences accompany successful and less than successful performances. Pre-event emotional experiences affect performance whereas on-going performance affects the dynamics of mid- and post-event emotional experiences. There are three interdependent levels of human experiences related to and induced by athletic performance. These include situational transitory emotional experiences (psychobiosocial states) such as anxiety, anger, joy, or excitement); relatively stable patterns of experience (traits, dispositions), and meta-experiences (experiences about experiences).

For instance, an athlete can experience high anxiety prior to a competition. This situational state manifests itself in negative thoughts and expectations, feeling nervous, worried, and apprehensive. This experience is very individual (idiosyncratic) and for different athletes it can be harmful, or helpful, or would not affect athletic performance in a particular competition (see **Anxiety and optimal athletic performance**). If anxiety is experienced repeatedly, a consistent pattern of experiences or a typical response disposition (trait anxiety) is formed. However, the athlete often reflects on significant emotional experiences in particular situations and their effects upon athletic performance. As a result, meta-experiences are formed and this self-knowledge, beliefs, and attitudes can strongly affect the athlete's interpretations of different performance situations and the choice of adequate (or inadequate) coping strategy.

For instance, Michael Johnson is often quoted as saying that “he was really nervous when he was not nervous prior to an important race”. From previous experiences, he knew that high situational anxiety was an optimal experience for his performance. Specific meta-experiences usually trigger corresponding self-empowering or self-defeating thoughts and self-statements and thus determine the beneficial or detrimental impact of emotional state upon performance. Therefore, there is a special need for a psychological help for athletes who are unaware of their optimal experiences or when their meta-experiences are less than effective (self-defeating).

There is ample research examining situational emotional states accompanying individually optimal (successful) and less than successful (poor) performances in different athletes across different and similar sports (**Emotions in Sport: Individual Zones of Optimal functioning (IZOF) model**). This individual- and action-oriented framework developed in high achievement setting focuses on optimal and dysfunctional situational experiences accompanying successful and poor performances. This individualized approach to description, prediction, and explanation of emotion-performance relationships employs a multidimensional conceptualization of emotion as a component of psychobiosocial state. The model predicts interindividual variability of emotion content and intensity and their effects on individual athletic performance based on the in-out of the zone principle. It is argued that different forms of psychobiosocial state (cognitive, affective, motivational, bodily, motor-behavioral, operational, and communicative) reflect availability (or a lack of) resources, their recruitment, utilization, and a need for recovery (recuperation).

Briefly described, these findings indicate that (a) negative situational emotional experiences (such as anxiety or anger) are not always harmful for individual performance; (b) positive emotional experiences are not always helpful or optimal for performance; (c) optimal and dysfunctional emotional experiences are highly individual (idiosyncratic). Pleasant and unpleasant optimal emotional performance state is a most favorable and adequate state for a particular individual (or a team) under specified conditions. Optimal performance state usually results in individually successful performance that is equal to or better than realistically expected.

Research also shows (Hanin, 2000, 2003) that, in contrast to ideal performance state (flow state) triggered by outstanding performance, optimal emotional states can be positive and negative prior to, during and after performance. Positive optimal states are experienced when an athlete's resources match well current task demands; positive dysfunctional states reflect a routine performance situation when resources are available but neither recruited nor used properly. The task is perceived as too easy, which results in excessive satisfaction and even boredom. Negative optimal states (anger, anxiety) reflect a threat (or a risk) situation (task demands exceeding available resources) when an athlete attempts to actively cope with of this imbalance. Finally, negative dysfunctional states reflect a situation when an athlete is unable to cope with task demands exceeding currently available resources. Repeated experiences related to unsuccessful performance (**slumps**) and a failure to recuperate existing resources could result in chronic staleness, **overtraining**, and **burnout**.

Sport psychology section describes different aspects of performance related situational experiences that actually characterize a state of *readiness for competition*. These

include **self-confidence** (state and trait), **attention and concentration**, experiential and behavioral manifestations of **intrinsic** and **extrinsic motivation** at the situational and dispositional levels, individually optimal levels of **anxiety**. For instance, this research indicates that the anxiety intensity (as well as other emotions) associated with optimal sport performance varies considerably across athletes, even for those competing in the same event. This research also indicates that a substantial percentage of athletes actually benefit from elevated anxiety and in these cases, interventions aimed at reducing anxiety may be counterproductive. These findings illustrate the notion that optimal anxiety reflects attempts to situationally compensate for an apparent lack of resources as related to task demands as a person-specific coping strategy. The effect is further enhanced by an optimal self-empowering meta-experience: an athlete knows that such level of anxiety is useful and helpful for her. A previously cited case of Michael Johnson illustrates well this point.

On the other hand, athletic excellence requires an optimal and sustained effort and the athlete's body to be appropriately energized, with physiological and psychological resources prepared for the stresses and physical demands of competition. **Arousal** as a component of psychobiosocial state manifests itself in physiological reactivity and physical energy. It is also paired with varying levels of concomitant cognitive, affective-volitional, motivational activity, and behavioral display.

Typically the physiological component of arousal is measured through muscle tension, cortical activity, electro-dermal activity, respiration, and biochemical markers such as epinephrine and cortisol. However, in recent years, there were numerous attempts to also identify idiosyncratic markers of perceived subjective bodily response to competitive stress

both in best and worst competitions. This line of research has a great potential for the practice of sport psychology by providing a tool to enhance an athlete's bodily awareness.

B. Resources as Performance Enhancement Strategies

What are internal and external resources that can enhance athletic performance? How can athletes and teams use their resources more effectively?

The construct of internal and external resources proposed here is not entirely new. For instance, it is used in the conservation of resources (COR) model to define and explain psychological stress (Hobfoll, 1989). Examples of broadly defined resources include not only personal characteristics (self-esteem, mastery, well-being) but also interpersonal, material, and work related resources. The basic tenet of the COR model is that people strive to retain, protect, and build resources because the potential or actual loss of these resources is a threat and a source of psychological stress. Then psychological stress is defined as a reaction to the environment in which there is (a) the threat of a net loss of resources, (b) the net loss of resources, or (c) a lack of resource gain following the investment of resources.

The lifespan model of developmental challenge employs the constructs of resources and challenges to explain the processes of human growth (Hendry & Kloep, 2002). Examples of potential resources include *biological dispositions* (health, personality, "talents", intelligence, body shape, attractiveness); *social resources* (trust, attachment, size and quality of network); *skills* (basic, learning, social, psycho-motor, etc.); *self-efficiency* (self-efficacy appraisals, experience with success, assurance from others, locus of control); and *structural resources* (country, race, class, family, income, gender).

In competitive sport, resources are defined as psychobiosocial assets determining athletes' ability to perform consistently up to their potential. Here the emphasis is on how

available resources are identified and then systematically and effectively recruited, utilized, recuperated, and further developed (Hanin, 2000, 2003). There are four closely related approaches to the enhancement of athletic performance. These include situational and individually optimal states; relatively stable experience patterns (dispositions, personality traits, and sport-specific qualities); **psychological skills**, and **group dynamics** factors. The strategies used in each of these four approaches to performance enhancement are actually different groups of internal and external resources. There is considerable overlap between these four groups of resources and they also concur well with the COR model and the lifespan model of developmental challenge.

Earlier discussion of individually optimal situational states and relatively stable experience patterns indicates that an athlete's better awareness of her optimal states and adequate meta-experiences can be very effective internal resources. Furthermore, personality characteristics and sports-specific qualities (winner's profiles, a wheel of excellence) are also important potential resources for achieving athletic excellence. Although personality characteristics do not predict directly situational performance, they could be instrumental in predicting long-term effects of sport participation, for instance, the mental health model proposed by Morgan (1985). However, it is important to realize that athletes could achieve success even if they lack certain personality traits and qualities. The implication for a consultant working with an athlete (or a team) is clear: she should focus on developing available individual strengths rather than repair apparent deficiencies.

Psychological skills as a set of techniques and coping strategies aiming to produce an optimal state of readiness are actually valuable *resources* that successful athletes learn and

use systematically to achieve consistent excellence. These resources are usually targeted at some specific modality. Therefore, the classifications of psychological skills usually include implicit or explicit reference to some form of human functioning (cognitive, affective, motivational, bodily, motor-behavioral, operational, communicative). At the same time, these different forms of functioning as components of psychobiosocial state can also be employed to describe different task demands.

Group dynamics and environmental factors could be also considered as important personal and team resources. These potential resources include cohesion, psychological climate in the team, patterns of interpersonal communication between the teammates and between the coach and the players, leadership style, group norms and values reflecting sport subculture. For instance, high work morale and honesty as accepted values and group norms in a sport team could promote fair play behaviors and considerably minimize **cheating in sport**.

From social psychological and environmental perspectives, it is important to realize that competitive sport is a part of the society at large. Therefore equitable or non-equitable conduct found in society is generally reproduced in sport settings. When sport traverses racial, ethnic, social, national, and gender boundaries, it has the power to bring diverse people together while de-emphasizing social or cultural differences. In other words, **fair treatment in sport**, in contrast to other settings, can provide conditions to significantly extend existing personal (or team's) resources. As an external resource, while sport offers the opportunity to traverse cultural identities and unite different peoples, it also can have the opposite effect. Thus unfair treatment or even discrimination in sport (similar to other settings) can overtax the athletes' and teams' resources and considerably slow down their

situational success and long-term development. In some cases, however, this negative treatment can be a strong motivator for athletic and personal excellence.

As Krane argues in her paper (**Fair Treatment and Discrimination in Sport**), fair treatment in sport occurs only when there are equitable resources and opportunities for all participants, regardless of social group membership (e.g., gender, race, ethnicity, nationality, sexual orientation, and social class). In reality, that is not always the case. In some cases, differential treatment occurs in which minority social group members are treated unfairly. In other situations, sport is definitely an avenue to educate people and increase awareness about a wide range of social issues, fight social injustice, and provide humanitarian assistance. Therefore applied sport psychologists may employ a variety of strategies to promote fair and equitable sport.

C. Barriers to Athletic Excellence

What are the barriers to optimal athletic performance? How can athletes (and teams) minimize or cope with them?

The threat of a net loss of resources, the net loss of resources, or a lack of resource gain following the investment of resources could be strong barriers to successful performance.

Four groups of internal and external resources (situational states, personality traits, psychological skills, and group dynamics factors) proposed earlier could provide a framework to describe potential barriers to athletic excellence. Specifically, the notion of resources and their role in enhancing athletic performance is dialectic. A lack of resources or a failure to identify, recruit, and use them effectively could become a potential and a serious barrier to consistent athletic excellence. Examples of such barriers are dysfunctional

emotional states, an overemphasis on apparent deficiencies, and a lack of performance related skills. Finally, environmental barriers include inadequate motivational climate in the team, selfish behaviors of teammates, media pressures, conflicts between a coach and an athlete, etc. The typical consequences of the impact of barriers include **performance slumps, overtraining, burnout, and injuries**.

To minimize detrimental effects of internal and external barriers, it is recommended to enhance an athlete's awareness of available resources and the strategies of their on-going development. Such awareness should be extended to a better understanding of causes of sub-standard performance and learning better risk management by maintaining self-efficacy, emotional control, and individually effective coping skills. Although the emphasis here is more on situationally effective coping strategies, their role should be understood also from a wider (career development) perspective.

IV. ATHLETIC EXCELLENCE FROM A DEVELOPMENTAL PERSPECTIVE

A. Athletic Career Demands, Coping Resources and Barriers

What athletes have to go through in order to achieve athletic excellence? Can any athlete reach it? What factors help athletes to reach it and what might work as barriers under the way? These questions relate to the athletes' development during athletic career and the demands they have to cope with by using specific resources.

Rapidly growing body of research in sport psychology focuses on "athletic careers" in an attempt to understand better how different athletes in different sports become expert performers and how they reach and maintain consistent excellence. Metaphorically, athletic career (from initiation of sport participation to the retirement from sport) can be described as 'a miniature lifespan course' involving a number of important *transitions* between the

predicted *stages*. Understanding the mechanisms of these transitions and stages is important for coaches, athletes, parents, and sport psychologists.

It is very common for many an athlete doing the first steps in sport to have a dream to reach athletic excellence, become professional, and win a World Championship or Olympic Games. However, usually it takes a long time to make this dream true. A so-called “athletic pyramid” shows metaphorically that only a few of athletes among those who participate in sport achieve athletic excellence and make **successful** (elite, “recognized”, professional) **athletic careers**. For instance, a “pyramid” with one professional soccer player at the top consists of 6000 soccer players at bottom; whereas the one with a professional basketball player at the top has 14000 players at the bottom (Smith & Smoll, 1991). Usually “in highly competitive domains, such as music, math, or sports, the way down is always much broader than the way up. Year by year, it becomes more difficult to catch up, and dropping out becomes increasingly easy” (Csikszentmihalyi & Robinson, 1986, p.275).

An athletic career of each individual athlete is unique and there are still debates in sport psychology about factors contributing to individual differences in sport achievements (Durand-Bush & Salmela, 2001). It is becoming increasingly clear that interplay of several groups of factors can help or hinder an athlete’s development and achievement of athletic excellence. These factors include an athlete’s innate talent/potential, environmental factors (competent coaches, family support, adequate conditions for practice, etc.), an athlete’s ability to develop, recruit, and use effectively all resources necessary to cope with increasing demands of the athletic career.

Usually athletic career starts at the age of 7 –10 years and sometimes even earlier depending on the sport event (e.g. in swimming, artistic gymnastics, figure skating, ice-

hockey). First, children perceive sport as merely “playing a game”, however, later their attitudes change and sport becomes as “a sphere of education”. Much later for those who reach the top it becomes “a job or professional activity”. It takes usually about ten years of deliberate practice to reach an expert performance level in sports (Ericsson, 1996) and staying at the top before retirement usually lasts between 5 and 15 years. At a most general level, an athletic career typically consists of several stages: “initiation”, “development”, “mastery/perfection/culmination”, “maintenance”, and “discontinuation” (see also

Successful Athletic Careers).

Athletes striving for athletic excellence and staying at the top have to cope with increasingly complicated *demands* related to their practice, competitions, communication, and their civil life outside sport. There are specific demands at the beginning (transitional) part of each athletic career stage. Research findings summarized in the FEPSAC Position Stand # 3 (1997) indicate that *the beginning of sport specialization* requires adjustments mainly to the demands of sport event, coach, sport group, and a new schedule of everyday life. Here young athletes must ensure the right choice of sport, show ability in learning sport skills, and test themselves in their first competitions. When the athlete and coach decide to work for results they enter *the transition to the development stage or intensive training* in the chosen sport, characterized by more intense and specialized practice and participation in higher-level competitions. This transition requires that athletes adjust to higher physical and psychological loads, improve their technical and tactical skills, achieve relatively stable results in competition, and combine sport taking more of their time and energy with other activities (studies, leisure).

The first significant success brings the athlete to top-level sport with its tough competitions and that indicates a *transition to high-achievement and “adult” sport or to the mastery/perfection/culmination stage of athletic career*. Further progress requires that athletes revise their life style so that it works for sport goals. They should also find their individual paths in sport, the ways to cope with pressures of selection to important competitions, gain respect of a team, opponents, and judges. In short, here an athlete earns her reputation, which later will work for her. *Transition from amateur sport to professional sport* is marked by adaptation to specific requirements and pressures of professional sports, competitions with really strong opponents, more independent training, and working not only for the victory, but also for fans’ sympathies. *The transition from the culmination to the maintenance stage of athletic career* is characterized by the necessity to search for additional resources in order to maintain a high level of achievements and to plan athletic retirement. *The termination of athletic career* is marked with leaving sports with the following transition to some other professional career and adjustments to a new status, lifestyle, and social network.

Career demands briefly described above characterize so-called normative transitions. However, each athlete also experiences a number of non-normative (idiosyncratic) transitions related to his/her particular situation or environment. Transition demands create developmental conflict between “*what the athlete is*” and “*what he/she wants or/and ought to be*”, which stimulates the athlete to find additional coping resources. Effectiveness of coping depends on the *dynamic balance* between *transition resources and barriers*. Here transition resources imply all internal and external factors, which facilitate the coping process (the athlete’s self-knowledge, skills, personality traits, motivation, availability of

social and/or financial support). Transition barriers include all internal and external factors, which interfere effective coping (a lack of necessary knowledge or skills, interpersonal conflicts, difficulties in combining sport and studies or work). Interestingly, the same aspect of experience may be as a resource or a barrier depending on the situation. For example, *athletic identity*, which is 'the degree to which the individual identifies herself with the athletic role' (Brewer, Van Raalte, & Linder, 1993, p. 237) is usually an important resource for an athlete, especially when she is at the peak of her career. However, it can turn into a serious barrier in the process of adaptation to post athletic career life.

Typically, at the beginning of athletic career athletes experience a lack of internal resources (sport-specific knowledge and skills), which are compensated by social support from a coach, the family, and peers. At the culmination of athletic career, athletes are usually most resourceful and the career demands are the highest. Elite athletes often rely very much on their relatively stable experience-patterns and meta-experiences. At the maintenance stage of athletic career, athletes often lack social support, their health deteriorate; they are bothered by the consequences of injuries, a lack of energy, and pressures in other spheres of life. However, all these concerns can be compensated by the individualization of all aspects of the athletes' preparation. For example, veteran-athletes typically train less than their younger counterparts, but they use more effectively their individual strengths. This allows them to maintain results at a high level until the very end of their athletic career.

B. Athletes' Successful Transitions and Crisis-Transitions

What happen in a career transition when the athlete is able (or fails) to cope with transition demands? Do athletes need any psychological help while in a transition? If yes, what kind

of help would be useful? These questions relate to a coping process, the outcomes, and consequences of career transitions.

Coping process is central in a transition and includes all strategies the athlete use in order to adjust to particular transition demands. An adequate match between the perceived demands and available experiences creates *a state of readiness to the career transition* and a higher probability of successful transition. *Successful transition* is associated with effective coping when the athletes are able to recruit/use or rapidly develop necessary resources and avoid (or overcome) potential transition barriers. One of the principles in effective coping is relying on athletes' strengths, which can compensate for potential and existing weaknesses or barriers.

An alternative outcome is *a crisis-transition* when an athlete is unable to cope effectively on her own with the demands of the transitional situation. Research identified a set of symptoms or markers describing typical reactions of athletes in crisis-transition (Stambulova, 2000, 2003). These include a decrease in self-esteem (as a first reaction to ineffective coping) and chronic emotional discomfort. Athletes also report new fears, increased sensitivity to failures, poor decision-making, and inadequate behaviors. Attempts to change the situation are usually ineffective and instead of improvement new mistakes (and failures) are committed. Therefore athletes often describe their feelings in a crisis-transition metaphorically as being in a "blind alley" or a "dead end". For instance, an elite athlete, dropped out of sport after being caught up with a doping, described her feelings in the crisis as follows: "I totally panicked and did a terrible error... I took... forbidden substances as a final effort to get away from the feeling of being useless. My head was in chaos and there were no open roads left to take".

Athletes in crises need psychological assistance to shift them from “a dead end” situation to “being at a cross-road” situation and to see several new coping alternatives available. Moreover, psychological intervention influences the *consequences of the transition*. Effective intervention leads to successful but “delayed” transition. Alternatively, ineffective or no intervention situations are followed by negative consequences or so-called “costs” for failure to cope with the transition. Possible “costs” include decline in sport results, injuries, overtraining, neuroses, psycho-somatic illnesses, premature drop out from sports, and also different forms of rules violation and degradation of personality (alcohol and drug use, criminal behaviors). All these “costs” can be seen as negative effects of sport participation and also as barriers to cope with forthcoming career demands.

A developmental perspective provides a framework for a better understanding of career transitions. For instance, Vygotsky’s (1984) constructs of the *zone of actual development (ZAD)* and the *zone of proximal development (ZPD)* could be instrumental in prediction of transition consequences. The ZAD is a range of the tasks, which a person can solve on her own; the ZPD is a range of the tasks, which a person can solve only if assisted by others. If most of the athlete’s coping resources are in her ZAD, a successful transition can be predicted; in contrast, a crisis-transition is expected if most of the athlete’s resources are in her ZPD. Therefore, a psychological intervention should focus at helping an athlete to develop new resources and overcome potential transition barriers, especially if transition demands exceed available resources.

The lifespan model of developmental challenge (Hendry & Kloep, 2002) earlier applied to athletic performance (from a short-term perspective) can also be used for the interpretation of career transitions. Typically transition demands require a long-term coping

process and a lot of resources. Successful coping means adding new resources to resources' "pool" and an outcome in the form of *development*. Then if no new demands come and the athlete simply repeats everyday routines, *development* eventually turns into *positive stagnation*. Crisis-transition can be seen as *negative stagnation*, which might turn into *development* (under condition of qualified psychological assistance to the athlete) or into *decay* (i.e., negative consequences of not coping with the transition).

Developmental psychology interpretations demonstrate dialectic nature of career transitions and their role in achieving athletic excellence. Each career transition with its demands is *a step* to athletic excellence. There is a *risk* not to meet the demands and come to *negative stagnation* or *decay*. But there is also *a chance to develop* further and to experience *positive stagnation* on a higher level.

Three types of psychological interventions can be useful to help athletes in career transitions: a) a crisis-prevention; b) psychological crisis-coping; c) psychotherapeutic (clinical) interventions. *Crisis-prevention* involves career planning and goal setting, mental skills training, organization of social support system. This intervention aims to prepare athletes in advance for a transition by developing their resources for effective coping. This approach actually enhances their *readiness* for the transition either on their own or by using an expert assistance. *Psychological crisis coping* is an intervention for athletes already in crisis-transition and it includes mainly individual counseling and psycho-correction programs. The focus here is on helping the athlete to analyze her situation, to find the best option for coping, to develop and realize the action plan. Usually these interventions deal with *negative stagnation* and help the athlete to turn it into a development situation. *Psychotherapeutic or clinical interventions* are applied when the athlete has already

experienced one or several of the above-mentioned negative consequences of not coping with a crisis-transition. In other words these interventions deal with a decay trying to stabilize and then to improve the athlete's situation.

C. From Athletic to Personal Excellence

What are the "benefits" and costs of many years of sport participation? How can sport psychologists help athletes to maximize the 'benefits' of athletic career and to minimize its "costs"? How can successful athletic career contribute to the athlete's life outside sport?

Athletic career can be evaluated not only a stage-like developmental process, but also as a "developmental "event" contributing to the lifespan development in and outside sport. From this perspective, several parameters characterize an athlete's development during athletic career. These include *duration* of sport participation from start to peak and finish, *sport event(s)* practiced, the degree of *specialization*, and *achieved* sport titles/records/results). Subjective indicators include perceived "*benefits*" of sport participation and its "*costs*" (in terms of time, energy, health, money, etc.) as well as *career satisfaction* (one's self-esteem in regard to the athletic career) and *career successfulness* (social recognition of one's athletic career).

Successful (or elite) careers are usually associated with athletic excellence, whereas satisfactory careers are associated with achieving individual peak corresponding to the individual resources and environment. Satisfaction is based on a set of self-referenced criteria, but most often it consists of perceived potential in relation to level of achievements and athletic career "costs". Interestingly, some athletes are often satisfied with non-elite careers, if they value the developmental effects ("benefits") of sport participation (self-knowledge, physical fitness, good health, skills, qualities, social contacts that can be used

in other spheres of life). In contrast, other athletes may be dissatisfied with their elite careers, especially if they perceive the “costs” as too high (deteriorated health, deficits in education, a lack of really close personal contacts or any interests outside sports).

To achieve athletic excellence, athletes have to start and specialize in a particular sport event quite early. This can facilitate young athletes’ progress in a chosen sport, but it also can result in several negative consequences such as high pressures, fears, and one-sided development. To avoid this, the Coach Effectiveness Training (Smith, Smoll & Curtis, 1979) provides guidance to coaches working with children and youth to focus more on optimal development of young athletes rather than on “winning at all costs”. Positive developmental effects related to athletes’ self-esteem, skills level, satisfaction with various aspects of sport participation should be provided for all young athletes, and then the most talented of them move further to the athletic excellence level.

In a broader sense, sport psychology aims to help all athletes including top performers facing tough transitions and pressures of their careers to achieve optimal development and their individual peaks in sport. Therefore, *career/developmental perspective* in applied work with athletes includes several aspects: a) “whole career” approach, which spans the athletic career – from initiation to termination – as well as the post-athletic career; b) “whole person” approach (taking into account not only athletic but also non-athletic developments of athletes); c) developmental approach (links between past, presence, and future); d) activity-specific approach (taking into account general & sport event-specific factors); e) individual approach (taking into account typical & individual patterns); f) transferable skills approach. For instance, the latter (Danish, Petitpas, & Hale, 1993; Danish, 2001) implies a series of sport-based life skills programs that aims to teach

physical and mental skills (emotion self-regulation, effective communication, goal setting, coping with success and failure, etc.), which can be generalized to various spheres of the participants' life outside sport. This approach can be useful at each stage of athletic career and especially for retired athletes to help them adapt their skills/experiences acquired during sport participation to their post athletic career life.

A challenge for sport psychologists helping athletes to reach athletic and personal excellence is to find a right balance between situational current problems and the future career development issues. For example, what is more important for the athlete: to prepare well for a forthcoming competition next week or to make sure she joins a national team next year? The other dilemma, for instance, with a veteran-athlete would be to focus either on searching additional resources to help him keep sport results at a high level or to plan retirement and post athletic career life. Apparently, the best answers to these and other similar questions would be provided by applied sport psychology as a science and art. Science would tell us that it is important to keep in mind both the situation and career perspectives; whereas art based on past experiences, skills, and intuition would be the best answer to the how to do this question.

V. CONCLUSION: Future directions in sport psychology

What has been done in applied sport psychology? What are the main concerns of the field right now? What is on its future agenda?

In order to enhance the effectiveness of scientific support in elite sport several new future directions research-wise and from the practical (organizational) perspectives can be identified. These include a new emphasis on the role of elite coaches in psychological preparation of athletes and team, more focus on team-building, environmental and

organizational factors, and the development of closer international cooperation between scientists, practitioners and sports organizers. Each of these aspects is briefly described in the sections that follow.

More Psychological Support for Elite Coaches. Initial focus of most sport psychology research and interventions on athletes and partly on teams is well documented in literature. However, the role of coaches in the psychological preparation of athletes and teams should be further re-emphasized. In practice, it means that a coach should be a central figure in preparation of the team and sport psychologists should work more through the coach and with the coach-athlete team rather than only with an athlete. On the other hand, enhancing the psychological competence of coaches could be a decisive factor in enhancing a quality of coaching.

In the past, sport psychology interventions and mental training programs usually focused on competing athletes (coping with competition stressors). Less attention was paid to high quality practices and prevention of overtraining, staleness, burnout, and injuries. Therefore a most urgent and promising area of research and applications in sport psychology now and in the future should be the optimal performance of coaches and their coping skills for handling short-term and long-term chronic (burn-out) stresses. A special qualitative research into careers of outstanding coaches to identify the factors of their consistent excellence would be a challenge for future researchers and practitioners. On the applied side, it would be important to summarize existing experiences of how on-going individualized consultancy (personal coaching) for coaches can help them anticipate the critical transition periods in their careers.

Team-building and Effective Management. In the past, social psychological research in sport psychology was around 8-10% of all efforts and the role of environmental, organizational factors in elite sport is still underestimated. Therefore, sport psychology should focus more on holistic approach to the interpersonal and group processes that are determining performance and life of a team in a wider social and cross-cultural context. Optimization of communication in the team is a very promising and productive area of research and applications (Hanin, 1992). Practically, very little is known about the psychology of effective management in elite teams, sports federations, and clubs. Considering the quick development of elite sports, such areas as organizational development, change, and change management are potentially very important and new directions for research and applications. Here experiences and practices of organizational psychology and management already available in non-sports high achievement settings could be beneficial for sport. On the other hand, the findings obtained in elite sports might be of interest to top management, business, army, and police.

Cross-cultural adaptation of athletes and coaches. Recent developments in Europe and worldwide indicate that more and more elite athletes and coaches are working abroad. These professionals need new skills for successful adaptation to a new environment and its constant changes. Quick adaptation to a new team, new teammates and a coach, effective contacts with the media, negotiation skills are new and highly needed resources for elite athletes and coaches. Moreover, with more migration and higher mobility rates among elite coaches, a critical factor is the assessment of a candidate's potential for cross-cultural adaptation and individualized programs that could facilitate his or her entry to a host country. This is especially important in view of the fact that tradition and values in different

European countries are different and, for instance, a well meaning but authoritarian coach with a clear orientation on success can be less than effective starting his work in an amateurish environment of the host country. A follow up with the coach or an athlete could be also instrumental in helping them to quickly adapt and function effectively both professionally and personally in the new environment.

International cooperation of sport psychologists. There are indications that in the future, a better collaboration between applied sports psychologists from different countries could be useful not only for research but also in consulting. With recent developments in world wide communication, joint consulting and psychological support for coaches and athletes across different countries seems like a reality in the near future. Developing such a network of sport psychologists could be an interesting initiative, especially, where there is a lack of experts who could provide high quality services (in research and applications) for elite athletes and coaches. One possible solution would be to use the expertise of internationally recognized applied researchers and practitioners in sport psychology who could deliver the necessary services for elite athletes, teams and coaches and provide a hands-on experiences for the local young aspiring sport psychologists interested to work with elite performers.

To conclude, now as never before, a technology of application of what is already available in sport psychology is extremely important. Apparently, practical experience and expertise available in sport psychology are important not only in competitive and elite sport setting but also in such high-achievement settings as performing arts and business. There are promising indications that a gap between theoretical knowledge and experience-based knowledge in sport psychology is gradually being bridged. Moreover, there is a clear shift

in applied sport psychology from a predominantly negative, problem-oriented, and deficit-repairing approach initially “borrowed” from clinical psychology to a more positive psychology focusing on optimal performance and on an athlete’s and team’s strengths rather than limitations. Another promising trend in sport psychology is a more emphasis on idiographic (individual-oriented) and experience-based approach rather than on traditional nomothetic (group-oriented) comparisons of successful and less than successful athletes. Finally, early attempts to use personality tests to predict situational performance proved to be unsuccessful. A new and more promising approach is to conceptualize the situationally oriented applied work focused on enhancement of athletic performance within the framework of developmental perspective. This may provide an opportunity for sport psychology to become the psychology of athletic and personal excellence.

VI. FURTHER READING

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