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EVOLUTION OF PERFORMANCE IMAGERY  
AMONG ELITE TEAM-SPORT PROFESSIONALS  
FROM FORMER COMMUNIST ROMANIA

MASTERS THESIS SUBMITTED  
TO  
THE SCHOOL OF GRADUATE STUDIES AND RESEARCH  
UNIVERSITY OF OTTAWA

PRESENTED BY  
ANDY DIACONESCU

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TABLE OF CONTENT

Thesis

-Abstract.....	2
-Review of literature.....	3
-Method.....	7
-Results.....	15
-Discussion.....	43
-References.....	48

Evolution of Performance Imagery  
Among Elite Team-Sport Professionals  
From Former Communist Romania

Andy Diaconescu  
University of Ottawa

RUNNING HEAD: Team sport imagery

## ABSTRACT

In-depth interviews were conducted with eight European life-long sport professionals who were former elite athletes and then successful coaches in team sports. The purpose of the interview was to explore the role and the evolution of imagery from athlete to coach and to also determine whether mental imagery was used in any way by these professional coaches for enhancing team unity. Analysis showed that all these exceptional performers had excellent imagery skills and they used imagery training to achieve their sport related goals. Practical implications for enhancing team unity through imagery are also presented.

Athletes competing in team sports have to concentrate their efforts in two areas, individual performance and team play (VanYperen, 1992). At the international level when qualifications for major events or medals are at stake, preparation in both these areas become critical. Few studies have addressed these issues in team sports. According to Murphy and Jowdy, (1992) "common sense suggested that imagery ability is one of the most critical variables that might influence performance effects of mental practice and psyching up, yet it has not received the amount of serious attention from researchers -that would be expected"(p.228). It is well recognized that the psychological factors (Xuequin, 1991) play a decisive role at the crucial parts of the competition. Among them, perhaps one of the most central ones is imagery, a human skill frequently used by athletes but not always developed to its potential (Martens, 1984).

Orlick and Partington (1988) conducted an extensive study to determine whether there are significant links between Olympic performance outcome and certain mental skills. The conclusions of the study indicated that "Attentional focus and the quality and control of

performance imagery were the most important statistically significant athlete skills directly related to high level performance at the Olympic Games" (p 129). There is evidence that mental imagery can enhance performance if the images are vivid, positive and controllable (Martens, 1984; 1990). The use of mental imagery can help beginners to improve their technical skills (Zhang, Ma, Orlick & Zitzelsberger, 1992) as well as high performer athletes for refining and also command their techniques (Hall, Pongrac & Buckolz, 1985).

All experienced athletes have a different path to the top and a particular inner story. Their stories may be different, but it is believed that all of them use imagery and this helps them make it to the top. As noted by Orlick and Partington (1986), "These athletes (highly successful Olympians) had very well developed mentally imagery skills and use them daily. They used imagery to prepare themselves to get what they wanted out of training, to perfect skills within the training sessions, to make technical corrections, to imagine themselves being successful in competition, and to see themselves achieving their ultimate goal" (p 112). After examining the influence of mental training on the acquisition of

sport skills, Isaac (1991) stated "Subjects who have the ability to better control their images and produce more vivid images are expected to produce superior performances" (p 192).

While imagery can help reduce anxiety and improve kinesthetic awareness it is not likely that average performers will become "star" performers by solely using imagery; however, imagery can help them to identify their strengths and weaknesses and learn to play closer to their limits (Kenitzer & Briddell, 1991).

The present study explored the perspectives of eight Romanian professionals who were highly successful in their careers as high performance athletes and subsequently as high performance coaches. It was expected that these exceptional people who had spent their lives excelling in team sports, could shed some important light on mental preparation for excellence among team sport athletes. The primary purpose of this investigation was to determine whether (and how) mental imagery was used by these individuals when they were national team athletes and whether imagery skills were drawn upon or nurtured in their coaching roles. A secondary purpose of this study was to explore the concept of the team unity as viewed by

these high level coaches.

All of the subjects in this study competed successfully at the international level during the 1950's, 1960's and 1970's. At that time autogenic training was widely practised in Europe. The autogenic training (Vanek & Cratty, 1970) was based on alternating muscle relaxation and tightening, concentrating on his/her body and imagining himself/ herself competing successfully. Vanek and Cratty maintained that an athlete using this type of autogenic training should be reasonably intelligent and that these techniques would be profitable for about 45% of athletes. Imagery was an essential component of autogenic training. Starting with the Helsinki Olympics (1948) through to the Munich Olympics (1972), autogenic training was basically the only mental preparation procedure taught to Romanian National Team athletes. The same was true for other communist countries. Team motivation was based on the concept of nationalism, patriotism and winning for your country. This concept was effective for enhancing team unity and competitiveness among athletes raised in communist countries. However, neither nationalism nor autogenic training were very helpful in teaching

individualized mental preparation strategies. Thus, each athlete had to find his own way to mentally prepare for practice and competition, and to remain focused and positive from one game to the next. This was a personal enterprise, with no exchange of personal opinions, which led some of the best athletes to a path of self discovery and individualized visualization.

#### METHOD

##### Subjects

Ten well known and highly respected male European team sport coaches were selected to be interviewed for this study, all of whom were former top athletes and then successful coaches of high level teams. Eight of the ten coaches consented to be part of this study. They represented the following sports: basketball (four), team boat canoeing, team handball, soccer and water polo (one each).

The mean age was 55.4 years (range: 40 to 75). All subjects were married and seven of them had one or more children. They had competed internationally as National Team sport athletes more than 1,000 times (averaging 125 games/competitions per athlete). As coaches they had spent a total of 64 years as National Team Coaches (an

average of 9 years per coach). Collectively as athletes and as coaches, they won seven Olympic gold medals, nine World Championship titles and one European Cup of Champions (in soccer). All of them have at least one diploma from a National Coaching Institute as well as at least one degree in Physical Education (five), Law (three), Engineering, Business-Administration and Arts.

At the time of this study four of them were National Coaches or First League Coaches (in Hungary, Germany, Romania) and the other four were high level sport administrators (Sport Club President, Sport Counsellor, Deputy Sport Minister, National Sport Organization Vice-president).

The subjects lived their lives immersed in sport and developed a two sided vision of the game, from the perspective of an athlete and a coach. A unique characteristic of these professionals is their Romanian extraction. The researcher is also a life-long National Team athlete/coach of Romanian extraction. This facilitated access to open and candid interviews with these high level coaches. They entered the proposed research with enthusiasm and expressed their thoughts with sincerity.

Table 1

Overview of the Subjects' Sport Careers and Achievements

Subject / Sport	Playing Years	Coaching Years	Achievements Athlet/Coach	Education /Coaching
Water Polo	20 y	21 y	218 NT Games 10y NT Coach	Law/Ph.Ed NC School
Basket Ball	20 y	20 y	200 NT Games 12y League 1	Arts NC School
Hand Ball	21 y	15 y	2 World Gold Bronze 1990	Engineer NC School
Canoe	22 y	7 y	7 Gold Olymp 1 Gold World	Phys.Ed. NC School
Basket Ball	17 y	10 y	200 NT Games 8y NT Coach	Law NC School
Soccer	15 y	21 y	16 NT Games E.C.C. 1986	Phys.Ed. NC School
Basket Ball	20 y	21 y	22 NT Games 12y NT Coach	Law/BusAd Phys.Ed.
Basket Ball	15 y	23 y	8y NT Player 8y NT Coach	Phys.Ed. NC School

N = National; NT= National Team; NC = National Coaching  
 E.C.C.=European Cup of Champions; Bus Ad=Business Admin

### Interview Guide

A two section Interview Guide was developed for the purpose of this study. The first section included questions on demographic variables and background information. The second section included questions on the following areas of interest: the use of imagery (techniques, pre-game, post-game) as athletes and coaches, views on team unity, importance of coaching interventions. The interviews were tape recorded and later transcribed.

### Design

Individual interviews were utilized in this study as they provide windows of access to elite performers' lives as well as the highest probability of getting open and detailed responses. These subjects competed at a high level in team sports during an era when sport psychology was not readily available or developed as an applied science. The Interview Guide was conceived to elicit responses from the "former athlete" who may have used imagery as an athlete, as well as the "recent coach" who may have used imagery in his coaching role. The following steps were taken to refine the interview schedule and interview process:

## Team sport imagery 11

a. A pilot study was conducted to give the researcher the opportunity to interview professional coaches and test the clarity and relevance of the interview questions. Five CIAU Head Basketball Coaches at Canadian Universities and five Romanian First League Basketball Coaches were included in the pilot study. Through this exercise, the researcher became familiar with elite interview procedures and the Questionnaire was refined to ensure clarity of wording and relevance of the content.

b. The Interview Guide was shortened to include key central questions, as elite coaches have limited time and prefer a few well thought out questions and a quiet listener.

c. Each interview took place at a time convenient to the respondent, usually in the home or home-like setting, where the subject felt relaxed. Each interview took an hour, an hour and half to complete.

d. Follow up. In some cases follow up contact with the respondent was needed to gain further clarification on some responses. A telephone contact was used to get this clarification. It proved to be a beneficial tool.

Procedure

Phase one. A personal letter along with the interview questions were sent to all subjects before the interview. The letter stated the intention of the research (i.e. to obtain information from coaches with extensive experience in sport), assured them that the research would be conducted in a responsible manner, that anonymity would be maintained and a summary of the findings would be mailed to all participants.

Phase two. A telephone contact was made with each subject to arrange an interview time in Europe.

Phase three. Interviews were conducted in the subject's first language. All tape recorded interviews were then transcribed, translated and typed. Unnamed transcripts and the audio cassette were forwarded to a bilingual (english-romanian) referee for validation.

Phase four. A follow up letter, an interview transcript and a return envelope was sent to each respondent so that he could review his transcript for accuracy and to give him an opportunity to add or delete material. All participants declared that the interviews were an accurate reflection of their views and expressed a desire to see the results of this research.

It is interesting to note that during the interviews the participants recalled minute details as if it happened yesterday. The memories, perspectives and stories they discussed, were milestones in their minds and lives. They were speaking of their life work and life passion. After receiving the follow up letter inviting additional comments or details, four subjects pointed out by phone that they had said exactly what they had wanted to say and had no additional comments. The other four answered in writing repeating things they had already said in the interview, sometime using exactly the same wording. One of the participants wrote in his letter:

"As far as your new request for details, what I previously said in my interview, are things that matter, they are part of my experience on and off the floor".

One of the subjects ended the interview with a note of confidence in what he said and in what he lived:

"I am sure I am not the only one to declare these things. I believe, many other coaches before me had similar statements and when a bunch of people have same opinions, this means authenticity".

Qualitative Analysis

After checking with the subjects and confirming the authenticity and validity of the interview transcripts, the data were ready to be analyzed. The researcher read and re-read the transcripts many times in order to create a set of text segments which properly represented the ideas included in the responses. After reading, coding, interpreting and regrouping the various text segments (Côté, Salmela, Baria & Russell, 1993), five broad categories emerged, namely: the value of imagery; performance enhancement imagery - athletes; performance enhancement imagery - coaches; the role of team unity; and enhancing team unity through imagery. A second researcher (the adviser) read the transcripts and found the same set of categories to be evident. During the analysis process the following questions were present in the researchers' minds: a) Did exceptional performers who competed in communist countries in 1950's, 1960's and 1970's make extensive use of mental imagery? b) Are there similarities/differences in using imagery as a coach as compared to as an athlete? c) Does imagery grow or change over time? d) Is there any connection between team unity and the use of imagery?

## RESULTS

The results section begins with a presentation of each of the eight subjects in the study. Direct interview excerpts related to the use of imagery as an athlete\ as a coach are inserted. This is followed by a presentation of five broad categories which surfaced from a qualitative analysis of the entire interview transcripts.

### Case Studies.

#### Case #1

Sony started his athletic career as a swimmer. He became a very good water polo player at an early age, participated in 18 National Championships and played over 200 games with the National Team. After playing for 20 years he coached for 21 years at various levels, including 10 years at the National level. He is passionately in love with sports. He has a degree in law, a degree in Physical Education and a diploma from the National Coaching School. At the time of this study he was assistant coach with the Hungarian National water polo team.

Imagery was an important component of his life as an athlete and as a coach. He extensively used it in his sporting career.

"I started to use the movies of the mind when I was 17 and part of the Senior National Team. When a difficult game approached, I would take special care to visualize my play the day or the night before. I would see all the tactics the opponent could eventually throw in, as well as my counter-moves. As an athlete I was always visualizing myself and my opponent. I always had a personal plan before the pre-game meeting started and this helped me a lot when I played. My imagery always ended with my success and my team's success ... As a coach visualization became part of my job description. I visualized for all my players, starters and substitutes, to find the best solutions and to be able to motivate them. I would say it is a more demanding process for the coach than for the athlete. I can not believe an athlete or a coach can reach this high performance level without using imagery. And for those who pretend imagery does not help, I am convinced that they are using it erroneously".

## Team sport imagery 17

As a team athlete and a team coach, Sony always believed that commitment and team unity are paramount to success.

" Ever since I was 17 I lived in a team and I lived for my team. Except for my family, it meant to me everything. As a coach I always paid special attention to building the team. Why? Because only through mutual acceptance, common goals and cohesion can one make a team competitive. I discuss on an individual basis with my players the importance of having a competitive team and try to make them understand how team cohesion translates into a superior sport result. Most of them have never experienced such success. A mistake with your technical or tactical preparation will not harm the team compared to a mistake that damages team cohesion. The later can ruin your entire work ... It doesn't matter how skilled the players are, for elite competitions (tournaments for example) only the teams with high commitment and high cohesion will be successful".

Case #2

Mihai was a competitive basketball player for more than 20 years. He played more than 200 games for the National Team, participated in eight European Championships and was selected to the European All Star Team (1967). He believes it is the duty of those athletes who reached a certain level of success, to share their experience with younger athletes. For 12 years he coached with very good results First league basketball teams in Germany. He has Honours in Arts and a diploma from the National Coaching School. At the time of this study he was Head Coach and Sport Director with a German First league basketball team.

As an athlete, Mihai used a great deal of imagery. It proved to be beneficial for him and he continued to use it as a coach.

"Before each difficult game, my imagery went on for hours visualizing what I could do to be my best during my playing time. After a game, especially a loss, I would lay awake and replay in my mind the plays where I looked weak or vulnerable. Imagery was part of the normal routine I followed in order to focus on

## Team sport imagery 19

executing my job during games and to be in control. It brought a great deal of self confidence as well. In the beginning, as a young athlete, I used imagery randomly. With time, I used it more and more consciously. Today I watch the video (after a game) only when I need clarification, otherwise I feel much better with my own imagery. There is a difference between an athlete using imagery and a coach using imagery. As a player you discover "the move" in your mind and you just do it. As a coach you may discover the right "move" but you are sitting on the bench! Therefore you have to communicate the move to your player and also make him believe in what he is executing".

As a young athlete, Mihai competed successfully in various individual sports. He finally made his career in a team sport because the "team" took on a special meaning for him. Team unity became a major preoccupation.

"The team has always been everything for me. I gave up participating in individual sports, because the team became my home. As a player,

the most important things in my life have been: having confidence in my team and having success with my team. In a team you may find role players and talented players but only those talented players who are dedicated to the team will be accepted by the group".

Case #3

Sami was a competitive handball player for 21 years, participated in 120 games with the National Team and won two World Championships. His entire life was dedicated to sports. He coached at various levels for 12 years. He was the assistant coach when Romania placed 3rd at the World Handball Championships in Prague (1990). Sami is an engineer and has a diploma from the National Coaching School. At the time of this study he was Deputy Minister for Sport and Fitness.

As an athlete Sami used imagery extensively. Later on as a coach he coached his players to use imagery for improving their game.

"I love the game so much. I used to visualize all the most relevant episodes. I reached the stage where I could even narrate lost games in my mind with enthusiasm. Visualization helped

## Team sport imagery 21

to improve my game a lot. It helped me at least as much as practice sessions. I had the best coaches in the world, but no one ever taught me or even spoke to me about imagery. I did it all by myself because I knew it would help me. As a coach I invited my players to do imagery to prepare for the game and to do a mental self-evaluation in order to improve for the next game. I was continuously trying to instill a belief in the value of visualization just in case they hadn't found out by themselves how helpful imagery was. If they still failed to use this imagery, it was just too bad (for them and the team). I try to convince my players to constantly use imagery, especially for post game evaluation".

Sami's life revolved around the team and he learned through personal experience how important team unity is for winning.

"The team is my life, the environment where I live. In my first 15 years of marriage, I spent less time with my wife than with my team. Team unity is important. You may

## Team sport imagery 22

criticize your players from time to time, but only with constructive talk, in a positive environment, where they feel at home. Sometimes team cohesion could be endangered due to losing or overtraining. Therefore, the coach must be present talking to the players and finding remedies. For this, he also needs the player's support. On my team, the captain has always been the person who could bring the players together and not the technical leader"

### Case #4

Vanja competed in team boat canoeing for 22 years including five Olympic Games and 10 World Championships. He won seven Olympic gold medals (6 in doubles) and seven World titles (6 in doubles). He could not imagine his life without sports, so he decided to become a coach. He coached for seven years and his athletes won a gold medal at the World's and a bronze medal at the Olympics. Vanja is a teacher in Physical Education and has a diploma from the National Coaching School. At the time of the interview he was the Romanian National Coach for canoeing.

As an athlete he used imagery in preparation for all

### Team sport imagery 23

races he won and recommended the use of imagery to his teammates. With time his imagery skills became part of his day to day life. As a coach he invites his athletes to mentally prepare for competition by visualizing and analyzing the race.

"I used imagery extensively before competition, visualizing the competition, visualizing the opponents. I imagined my race, I knew very clearly what I had to do, and I stayed with my "tape", visualizing and refining until I was satisfied with the result. During the race I was totally in control and usually my "movie" came true, exactly as designed. I worked so much on my imagery that it is a part of everything I do. We are now here in this room, but I can "see", when the interview ends, we will be moving to the door, opening the door, going to the stairs, I can imagine everything, move by move. Today I emphasize to my athletes that they must imagine themselves and competitors, training and competing. When I was competing I tried to recommend visualization to my teammates.

One reacted positively and in two years we were perfectly synchronized (and the best in the world)... I am coaching very good athletes and I am prepared to wait until they buy into these mental concepts. The first one to do it will be a gold medallist"

Vanja preferred to compete in doubles and he was constantly in search for a partner until he found T.

"As an athlete I always preferred to compete in doubles. I changed five partners in five years before I found T. With previous ones I was winning as well, but I did not feel totally comfortable totally connected. T. was not a great athlete in singles, just average, but together we reached the level where the slightest sign in paddling from one of us would make the other one react instantly and appropriately. After two years as a team we had the same actions, the same goals and the same winning attitude. We were "racing" together before the start and this enabled us to know exactly how the next move would unfold during the competition. Our cohesion, our

## Team sport imagery 25

connection, was more valuable than our physical or technical training. For five consecutive years we won only gold. Today I encourage my athletes to learn to get along together and to be able to communicate with body language only. We don't have all electronic equipment for analyzing moves and for matching them in teams according to rules and algorithms. But I keep telling them, team unity is more important than anything else. To create a vivid image for the doubles I say "it is like a sewing machine, with a single shaft and two needles. When the two of them are synchronized, power and technique become secondary"

### Case #5

Gigi was a competitive basketball player for 17 years. He was a member of a National Championship team for 13 times and played over 200 games with the National Team. He always dreamed of becoming a good coach. Gigi coached a First league basketball team for 10 years and was the Romanian National Coach for eight years. He has a law degree and a diploma from the National Coaching

School. At the time of this interview he was the President of a well known professional Sport Club.

As an athlete, as a coach, Gigi made extensive use of imagery. He believed that only those players who can use visualization techniques, can make it to the top.

"I started to use the movies of the mind when basketball started to be more than just fun for me. This happened when I realized that I could be a high performance athlete. I was 17. My desire at the time, was to imitate, duplicate, one of the great players in our league. I was eager to play against the best. I started to imagine how I could possibly be successful when playing against these established players...Initially I saw myself as an unimportant part of the imagery compared to my opponents. Then gradually my role in the imagery program increased. My belief at the time was that only players who analyze their moves and their relationship with their teammates can make it to the top. It may account for as high as 50% of the player's performance. Especially when entering in a

technical argument it was exciting, as I knew we would end up with some clarification. These controversial discussions pictured the subject matter for my next visualization. As a coach I used imagery much more often than as a player, because I needed to see everybody moving on the floor. There is no alternative for defining how your athletes should play. In imagery, the Coach should anticipate what the opponent will do, and this means he has to visualize opponents as well".

Team unity was integral part of Gigi's preparation goals. He was convinced that team cohesion translates into superior sport results.

"The team is like a family. A group of people, sharing the same life, eating the same food, dressing in the same clothes, working equally as hard and having the same goals. Sometimes they are more related than their brothers. It is very difficult to find a group of 10-12 players and their coaches, who are totally committed to excel with the team. Team unity starts with this commitment. To build a team,

players should think the same way about important team issues and have the same goals. There are many obstacles along the way and it is very demanding work. When coaches and athletes reach the stage where they think the same and have common goals to which they commit themselves, the Coach has accomplished the mission".

Case #6

Emi was a competitive soccer player for 15 years. As an athlete he won four National titles and four National cups. His dream was to become a coach which he did for 21 years. His team was a three times Cup-winner, and a three times National Champion. In 1986 he won the prestigious trophy "The European Cup of Champions". Emi is a Physical Education teacher and at the time of the interview he was the Hungarian National Soccer Coach.

As an athlete Emi was known as a hard working player who always gave 100%. He used imagery effectively as a player and continued to use it as a coach.

"Before games I always did my imagery, "seeing" myself from inside while defending, passing or shooting. I could see my teammates

as well but as a player I focused more on myself giving 100%. I believe I succeeded in giving a constant effort and I was proud of this contribution to the team effort. As a coach I have the same belief in giving 100% and I see training as helping my team peak for competition. My imagery changed as a coach and I see now all my players, changing positions, defending or attacking. Of course I have to "see" the opponent as well. The focus of my imagery is to "see" our play running well and this is why I concentrate more on my players".

As a coach Emi sees the team as a group of people with common goals and well-defined roles.

" The team meant everything to me. I have always been subjugated by the team and the team's orders. This means I carried the piano, as the team is formed by two categories of players: most of them carrying the piano and only one or two virtuosos playing the symphony. These two categories of players have to play together. Those carrying the piano

### Team sport imagery 30

know very well that the soloist will lead the team to the victory. They all must know that they depend 100% on one another. This is what I try to teach them. If a coach is lucky enough to find a bunch of players who have common goals and understand how important team cohesion is, this coach will have good results. Not outstanding results. For outstanding results you also need outstanding players."

### Case #7

Al played for a First league basketball team for 20 years. He was a member of a National Championship Team two times and played in 22 National Team games. He was also an elite athlete in track and field and team handball. Al has a law degree, a diploma from the National Academy for Physical Education and a third diploma in Economics. The game of basketball was his passion and he decided to become a coach. He was the Head National Coach for 12 years. At the time of the interview Al was a Professor with the Physical Education Department at the University of Montreal.

Al started to use imagery on a regular basis as an

athlete and continued to do so as a coach.

"Initially I dealt with the psychological aspects of the game empirically, but after I obtained my degree in Physical Education I had a different perspective so I used these aspects constantly, mainly before difficult games. As an athlete and a coach at the same time my responsibility was to perform well with the team. For this I started to use imagery, visualizing all the performance factors, our strengths and weaknesses, anticipating opponents' moves, in order to define the best game plan. There is a difference in the way an athlete uses imagery, compared to a coach. The dissimilarity lies mainly with the level of responsibility, because the player is only a part of the whole and there is always somebody around who can correct a mistake or substitute him from the floor... The use of imagery by coaches can be more successful as the coach gets more experience, as his knowledge increases and as his confidence in his players increases. As a

result, the team's confidence in its coach will increase".

The club team where Al competed had its own facilities, uniforms, badges, pendants, hymn and sponsors. Al thinks it is the best environment for enhancing team unity.

"For building a successful team you need a homogenous group of people who can share a common life and common goals, a group of altruists that can accept each other and work together. The coach must evaluate togetherness as well as possible conflicts inside the group. Players have different temperaments, so they need individual care. By treating everybody equally, the coach can enhance acceptance between team members. The possibility of building team unity through imagery relies also on the coach's ability to invite the right thinking from his players. It is a two way process and the coach should accept players' ideas and use them in the group's interest. The team should be like a band playing the same melody."

Case #8

Dan was initially involved in many team sports like rugby, water polo, handball, volleyball and basketball. At 19 he dedicated himself to basketball. He played for 15 years for a First league team and for eight years was a member of the National Team. Sport was Dan's life passion and he decided to become a coach. As a coach, his team won 12 National titles and he served as Head National Basketball Coach for eight years. He is a teacher in Physical Education and has a diploma from the National Coaching School. At the time of the interview he was Romanian Basketball Federation Vice President.

Dan started to use imagery when he was 14. Since that time he never stopped using "the movies of his mind".

"The movie of the mind helps the player to experience playing conditions before the real game. It is a rehearsal, shipping the player into the game atmosphere and psyching him up. The younger the player, the more optimistic his visualization. Then, with experience, the movie becomes a game plan, encompassing your team's qualities, opponents' strengths and

other important performance factors. The outcome was always a positive one and this satisfied me. My state of mind was always positive before the game. I was never afraid of the confrontation and as an athlete or as a coach, I always exhibited a winning attitude".

Dan describes the team as family-like environment where the coach must use his imagination in order to enhance player-to-coach and player-to-player relationships.

"As a player the team was my family, my teammates my closest friends. As a coach, the team symbolized the origin of my joy and I offered support to my players at any time. To achieve unity within a team, the Coach needs a bunch of players who are willing to sacrifice. The Coach has to make sure the group leaders are among them. He should act as an observer and intercede from time to time, in order to embellish positive relationships between players. Over time, the team becomes our family, teammates our friends with whom we share ideas and common goals. Time is a major

factor in establishing the team attitude and common goals. There is a link between dreams and images, and team unity. However, imagery by itself is not enough. The coach must show confidence in his players and constantly enhance mutual trust between team members. Using his imagination, the coach can imagine ways to enhance the relationships between players or between players and the coaching staff. Then, the coach should act in a responsible way to make the dream a reality and help his players reach the goal of excellence within the team".

Qualitative Analysis.

In the following section five broad categories which surfaced in the qualitative analysis of the interview transcripts are discussed and representative quotes are presented, where needed, to illustrate the essence of each category.

**The value of imagery.** All subjects had a strong belief that mental imagery played an important part of their general preparation for competition. As athletes and then as coaches, their lives revolved around pursuing

and experiencing success within a Team concept. Dedication to the team, performing to their own potential and winning with the team were identified as the most important goals in their life-long sport careers. They all felt that imagery had helped them in their overall development as athletes and coaches.

**Performance enhancement imagery - athletes.** These National Team athletes reported that their mental images were clear and that they felt their body movements when engaged in imagery. They could easily "click on" to re-experience or retrieve previous performance images. They could "see" themselves from the inside. They could replay game sequences and mentally simulate plays. Before and after the game were the most common times for subjects to engage themselves in imagery. Their imagery generally began by drawing lessons from the last performance and ended with preparation for the next game.

"I had no difficulty with my imagery. I usually visualized our last performance, then mentally scouted our next opponent, always comparing, exploring and running through options".

Subjects reported that as athletes, they always did imagery before a difficult game, either the night before,

the day before, or during the week before, but not always before easy games.

"There are two categories of games: difficult and not so difficult. Before each difficult game I was activated and mentally ready and this is the reason I played well. All the awful games I played were the ones against easy opponents. I wasn't mentally prepared".

All subjects reported that it was very important and very beneficial for them to do mental imagery after a game, especially after a loss.

"After a game, especially after losing I wanted to be by myself with no one around in order to analyze my play. Phase by phase I would "see" the game until finally I ended up with an understanding of what happened and with lessons I could learn from. Sometimes I couldn't sleep for the entire night until I went over the successful and unsuccessful plays in my mind. When doing this kind of mental evaluation there is no room for cheating yourself".

A common focus when doing imagery was preparing for specific opponents, preparing to execute skills, moves or plays, and seeing themselves as winners.

"My opponents' were usually physically more gifted than me. My mental preparation was my advantage. During a confrontation on the floor I had to rely on anticipation, I had to know in advance what my opponent would do in order to be able to react better and quicker".

"... Most important to me in my imagery was the practical things I had to do on the court, the move that can make a winner out of me! And I did everything in my power to see myself as a winner".

The main goal of imagery for these athletes was to improve their game, to better control their emotions, to concentrate on an effective personal game plan, to stay focused on the right things during the game, to evaluate past performances with preciseness, and to look for practical solutions which lead to personal and team improvement.

"Before difficult games I was activated. Dealing with this state of mind was the number one priority before the start. I was constantly using imagery and getting myself mentally ready. Once in the locker room I was totally focused on the game and nothing could distract me".

Some subjects emphasized that successful imagery results are conditional on a combination of athlete's mental, physical and technical preparation.

"My psychological component worked only when I was well trained. I had to work hard on my conditioning and my techniques as I knew these were conditional for increasing self confidence. Having a game plan without having conditioning and technique on your side, just doesn't work".

" In order to be successful when doing imagery, one must also be well trained physically and technically. Good technical preparation gives players confidence and control, by decreasing the negative state of mind".

**Performance enhancement imagery - coaches.** Subjects started to use mental imagery as teenagers, as a result of their constant search for ways to reach the highest performance levels. With time and experience, the subject's imagery skills were refined and improved. By the time they became coaches, their imagery was highly refined, systematic and effective. It became natural and part of their day to day life. They continued to use the imagery skills that had worked well for them as athletes.

They continued to make extensive use of mental imagery and adapted it in order to get the best results with their teams.

"As a coach, you also have to create in your team a competitive state of mind. If for example we play against a very good team, I never exaggerate an opponent's qualities in front of my players. Conversely, when playing a weaker team I don't insist on opponent's weaknesses and make sure my players are up and ready to go".

As coaches, the content of their imagery was centred primarily on individual and team play of their own team, opponent teams, and on personal preparation.

"As a coach, 80% of my imagery was dedicated to visualizing the opponent. The rest was for determining the game strategy, the starters and the best match ups. I did visualization for each player separately, for both defence and offence. As a result when I was in team meetings or talking to my players, I was well prepared and convincing. I prepared for about 90% of our games in this way and we all knew our game plan and how the game will

#### Team sport imagery 41

look, beforehand. I had good results especially at the National Team level where players had better skills and commitment".

All subjects reported that once they became coaches, they felt an increased level of responsibility when using imagery because they had to prepare their team to play their best against opponents. For achieving this result, one coach dedicated 80% of his imagery to visualize the opponent, while another coach preferred to concentrate more on his own players.

**The role of team unity.** These coaches believed that team unity was a critically important part of building a winning team. Team unity was defined as a situation where commitment is high, individual players' goals are identical with the team goals, individual success is identical with the team success and players accept and respect each other. They described the successful team as a family-like unit, where the coach uses his talent to create a positive environment, to establish common goals and shows confidence in his players.

"When building a team you have to deal with top players and role players as well. They all have to learn that they are equally needed for

the team and they all get same respect from the coach".

"When discussing an issue with a player, or when making recommendations, I always keep in mind that he will not be able to execute all the points. After explaining what I am asking him to do, I invite him to use his personal judgement, and to find a solution, in order to generate at least 80% from his potential. By doing this, he will surely help the team".

Highly successful sports team appear to be family-like units with dedicated players and coaches. They experience common team goals, mutual respect among team members, team unity and consistent success. Some of the coaches have also underlined the importance of selecting "team players" as opposed to only technically skilled players. Dedication, self discipline, unselfishness, sacrificing, intelligence, are all concepts that coaches felt should be part of the selection criteria.

The talent in building team unity was felt to be dependent upon the coach's experience and knowledge and the support of the people around the team.

"The coaching staff and people around the team

### Team sport imagery 43

should help the players minimize external distractions (education, family, money) and free their heads as much as possible for performing".

**Enhancing team unity through imagery.** All coaches said that they used some form of imagery in their attempt to build team unity. Their goal in this regard was to get the players to think the right kind of images. To do this, they invited "team thinking" from players and encouraged players' participation in team's decisions. They felt there was a definite connection between the images coaches and athletes carried in their heads and team unity. Some of their advice for young coaches included:

"Read a lot, learn about psychological aspects of the group as you are working with humans and not with robots. Invite your players to self-evaluation and to find out what one can do for being part of a team".

### DISCUSSION

This study has revealed that these former high performance team sport athletes who later became very successful coaches had excellent imagery skills which they used extensively. Their imagery evolved from

#### Team sport imagery 44

sporadic, inconsistent, low detail imagery, which they began as teenagers, to consistent high quality imagery, used for a variety of purposes in sport and life. Through persistent daily practice, these elite athletes refined their imagery skills and gained superb control over own imagery. These findings support previous research with high performance athletes (Mahoney & Gabriel, 1987; Orlick, 1992; Orlick & Lee- Gartner, 1993; Orlick & Partington, 1988; Russell & Branch, 1979). It appears that proficiency at imagery is a very important element of success, and that the best results are attained by athletes who "see" themselves as winners, "feel" themselves executing skills with excellence, and critically analyze their performance after games with the help of vivid images (Isaac, 1992; Martens, 1984; Orlick, 1992).

For the subjects in this study, the process of implementing, controlling and refining mental imagery techniques, was a self-learned one. No one taught or talked to these high performance athletes about specific, targeted, individualized imagery. They applied their desire and intelligence to their own training, competition and goal achievement. They had a high drive

to excel and discovered different paths to excellence, one of which was refining their own mental imagery.

At the beginning of this study four questions were presented: a) Did exceptional performers who competed in communist countries in the 1950's, 1960's and 1970's make extensive use of mental imagery; b) Are there similarities, differences, in using imagery as a coach as compared to as an athlete?; c) Does imagery grow or change over time? d) Is there any connection between team building and the use of imagery?

The answers to these questions are as follows: a) Yes. These exceptional performers used mental imagery extensively as athletes and as coaches. The cultural/social context at that time was based on working hard, winning for your country and a group oriented approach to thinking you are the best. The great athlete/coaches in this study drew upon naive self-thought individualized strategies, which revolved primary around mental imagery in pursuing their goals; b) There are similarities and differences in using imagery as a coach and as an athlete. The imagery process is similar, the content is different. The coaches continued to use and refine the imagery skills they acquired as athletes

and drew upon these skills for achieving their new goals; c) Over time, imagery skills continued to improve and coaches felt that their own imagery was crucial for defining team strategies and pursuing their high level goals; d) Coaches felt there was a connection between imagery and team unity. By creating positive team images and encouraging players to imagine themselves accomplishing goals together, coaches maintained team unity is enhanced.

Knowledgeable coaches are positioned to play an important role in helping athletes practice and refine their imagery skills. They can accomplish this by communicating the value of imagery, by promoting, guiding and encouraging players' imagery experiences and by explaining that imagery (and performance) will improve if imagery skills are practised consistently, just as physical skills are reinforced regularly through daily training. Coaches and mental training consultants, should strongly promote quality imagery as this appears to be most effective for quality performance (Orlick & McCaffrey, 1991; Orlick & Partington, 1988).

It is interesting to note that as coaches, these former elite athletes, felt an increased responsibility

#### Team sport imagery 47

for doing high quality imagery for the team's benefit. They also believed that team unity could be enhanced by channelling imagery towards team unity goals, by encouraging player's participation in group decisions and by challenging athletes to discover the best strategies for team unity, and by creating opportunities for success. It is the contention of the exceptional performers in this study, that if both athletes and coaches make good use of positive imagery, together they can make a good team, a great team. This opens an interesting door for future application and applied research.

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