

## Welcome to the Journal of Excellence

# Journal of Excellence

The Journal of Excellence  
is devoted to nurturing  
excellence in  
all human endeavors  
and all worthy pursuits.



Issue No. 2

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## Mission of the Journal of Excellence

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Terry Orlick - University of Ottawa

My mission in initiating the birth of The Journal of Excellence was to fill some important gaps in our literature and in our lives that are essential to the pursuit of excellence. The Journal of Excellence is devoted to nurturing excellence in all human endeavors and all worthy pursuits. It is centered on the pursuit of excellence in the working or performing parts of our lives, as well as the non-working parts of our lives. Our aim is to inspire excellence, to present a forum to discuss the positive pursuit of excellence and to provide practical strategies and perspectives for pursuing high-level goals.

The Journal of Excellence is the communication vehicle for the International Society for Mental Training and Excellence (ISMTE), a not for profit organization with the vision of education and training for better people, better performers and a better world.

There is much discussion about the quest for, and value of excellence, for example in education, sport, health, the performing arts, parenting, teaching, coaching, leadership, health care, business and the workplace. There is also much talk about the importance of quality living, quality relationships and the development of a higher level of humanity. This is the first journal, which has EXCELLENCE as its sole focus. Providing people with the insights and strategies to be successful in their pursuit of performance excellence and excellence in living is the ultimate mission of the Journal of Excellence.

My vision is a journal that is applied in orientation, relevant in content and wide ranging in application. We are committed to:

- 1) Learning from and sharing the experiences of great performers and great people.
- 2) Developing a more thorough understanding of the mental links to excellence.
- 3) Promoting excellence in performance and excellence in living.
- 4) Initiating positive real world change.

If you have applied research or meaningful insights that are relevant to the pursuit of excellence in any worthy human endeavor, for any age group, we encourage you to submit your material to the Journal of Excellence to be considered for publication.

## Introduction to Issue No. 2

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This second issue of the Journal of Excellence represents both continuity and diversity. We feature articles in some performance pursuits that were first introduced in the previous issue: mental training for music and mental preparation for space flight. As well, the question of balanced living in the context of commitment to a high level pursuit is explored; this time from the perspective of athletes rather than coaches. Finally, the Mental Training Exercise for Quality Performance complements the previously published Mental Training Exercise for Quality Practice.

New areas presented in this issue include performance enhancement consulting, from an insiders view and from an observer's view, as well as an exploration mental skills related to high level performance in the sport of Professional ice hockey. Beginning in this issue, we added a new section entitled Profiles of Excellence. This Profile features an interview with an individual committed to the pursuit of excellence. Chris Hadfield, a leading Canadian astronaut, is this issue's featured Profile. Other issues will include interviews with athletes, coaches, teachers, consultants or other performers.

*Louise Zitzelsberger, PhD*  
Editor

## Reflections

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## Love and Fear: Personal and Artistic Development for Musicians

Kjell Fagéus, Musician and Teacher, Sweden

Kjell Fagéus plays the clarinet and has often appeared as a soloist and with chamber music ensembles. Aside from his performance career, he has a strong interest in teaching music and in personal and artistic development. He has recently written a book that covers clarinet playing and all aspects of musicianship including mental training. The title of the book, *Lek på fullt allvar*, incorporates two important aspects of performance: being a professional in one's field but at the same time, not losing the pleasure and sense of play.

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### Abstract

Kjell Fagéus combines his experience as a musician and teacher to provide an interesting perspective on how mental training can help students and professionals to improve their performance and enjoy the process. Kjell believes that performance lies in a delicate balance between love and fear. Love for what we are doing frees us to do great things, fear can cripple us and our performance. This article discusses how mental training can increase love and diminish. The content is based on a presentation and workshop given at the International Conference on Mental Training and Peak Performance in Örebro, Sweden in 1997.

### Love and Fear

I believe the most important energy in our lives is love...love for the instrument, love for the music, love for the audience. However, we often risk diminishing our true capacity. Love is blocked by fear, the other big energy source. Fear of what other people might say, fear of playing incorrectly, fear of letting yourself down. Can mental training increase love? Can mental training diminish fear? I am convinced it can do both!

### Benefits of Mental Training for Musicians

Research has shown how mental training (including relaxation, stress control

training and mental preparation) can enhance our sense of wellbeing resulting in better performance. Sports people, managers, doctors and musicians actively use these techniques. I feel that mental training for musicians works in three fundamental ways. Mental training can help a musician feel and function well; it increases physical and psychological health. It develops the capacity to deal with relationships: intimate relationships, those within an orchestra, pupil-teacher relationships and so on. If you do not take care of your health and relationships, it does not matter how musical you are. Bad health and bad relationships will incapacitate the development of your full potential.

Second, mental training is excellent preparation for a concert or audition. You can more easily find the balance between calmness and vibrancy. You can be present to the complete situation while concentrating on the task at hand. Engagement in the playing increases. Mental training helps the musician get to the level in the performance where the technique is easy and faultless, the music flows freely and the musician is full of joy and completely without fear, the state known as "flow".

To get into the flow of the music a mantra can be used - one or a few words to describe the character of the music. You repeat these words and feel in tune. The focus is placed on the music and not on distractions. Just before a concert, the repetition of the mantra and the reassurance of long term training enables you to walk on to the stage and just "do it".

Finally, long-term training helps in personal and artistic development. We change identity during our lives, for example, from a student to a professional musician. Mental training makes this transition easier. The mind becomes more open and receptive for new and creative ideas. The practice of relaxation increases energy and vitality. Self-confidence increases and we become more aware of our unique resources.

## The Developmental Training Process

Much has been written and spoken about development. What is development? Let me use an image to illustrate how I view it: a flower needs certain things for full development in spite of the fact that the potential is there from the beginning. A good environment, sunlight and so on will bring it to full bloom. Perhaps a gardener is needed to remove some weeds, to tend it

during its growing period to enable it to grow fully.

Like the flower, our potential for development is with us from the start. However, as musicians, we need a good place to live and work. We need the knowledge and experience of teachers and others. We need to increase consciousness about what drives us forward and what responds to our deepest inner urging. We need to increase our awareness about what prevents us from moving ahead. We need to be inspired and supported. We need to see that we are responsible for our lives and that we cannot blame anyone else for failure.

In the developmental training process, the musician learns mental training one step at a time. Once all of the skills are learned, they can be integrated in a continuous flow. First, it is important to see the situation as it is today: how much of the artistry needs to be improved? What are the strengths of which you can be proud? In traditional education, problems are often stressed. Positive aspects are neglected because they are in some way taken for granted. The positive side needs to be affirmed. The fundamental principle in mental training is to see the whole picture, positive and negative and thereafter focus on the goal(s) you set for yourself.

Physical relaxation is next. It may help to physically workout in the way you like best before practicing relaxation. It is helpful to listen to cassettes or CDs that include music and instructions for relaxing. The instructions should help a person experience the difference between tense and relaxed muscles. For these recordings, it is important to use music that a trained musician finds acceptable and calming. The session should last 15-20 minutes.

The third step is practicing inner calmness. As the body and mind are interconnected, training this skill has already begun in the first step. Here you find your own "inner mental room" where you can feel relaxed and calm. This mental room can be a place you have been to or just a place you imagine. In this room you get new vital energy and there you also can integrate your own positive affirmations such as, "I know what I want and I know how to get it".

In the following step you work on self-confidence. One way of doing this is to identify when your playing was of the highest quality remembering the feeling, the sound and the state of mind and body. Then, in a relaxed state of mind, you return to these moments. Thereafter, you can transpose these moments into the preparations for an upcoming concert.

Another aspect of training is awareness of the messages you give yourself. Negative elements can be camouflaged in seemingly insignificant messages; we discover that some messages from teachers or parents are retained as inner messages that sometimes choke and diminish our will and capacity for expression. By becoming more aware and responsible, you can choose to listen to what supports your aim in life and can sift out what blocks your way.

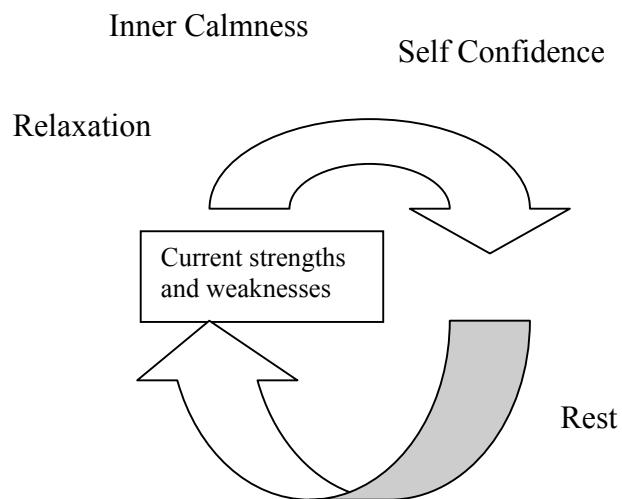
The last part of mental training is to set goals. The concrete goals need to be high and challenging while still attainable. One way of achieving this is first to formulate a dream goal. The dream goal is your true vision, how you want to be both as a person and as musician. This vision leads you in the direction you choose. You then formulate what you want to achieve, for example, for the next concert or for the next three months. By having both a concrete goal and a strong overall vision you can ac-

quire energy and motivation for working. You will also better use your creativity to develop your playing. The vision should not be something superficial but needs to come from deep within.

Integration of the goal is achieved by picturing the goal during deep relaxation. In this state of mind you are more like you were as a child: open and receptive. The goals and the messages you choose for yourself will live in you and influence your behaviour and your capacity to achieve.

The last aspect of the training process is no training at all. Rest from the sometimes demanding work of striving for development; trust the process, assured of what is happening. Observe the process while retaining your power, spontaneity and initiative.

The developmental training process looks like this:



### **The Process of Development**

When you work on your formulated and integrated goals, you then return to the starting point that now lies on a higher level. The development process works like a verti-

cally ascending spiral. There is always a "Now" to start from. It is very pleasing and satisfying that over and over you can see things with new eyes. During rest you can see your work bear fruit and receive strong feedback and motivation to continue training.

The chief of the United Nations, Kofi Annan, said at an interview during his visit to Sweden in August 1997 concerning criticism of the slow change within the UN, "Development is a process, not an event". I think it is important to see mental training in this way. A lecture in mental training can give a kickstart but long-term training results in development.

## **Teaching Mental Training in Conjunction with Musical Training**

I have combined mental training and traditional music teaching in two different ways. One is through a one week mental training course I teach to pupils who come to me from music academies. The maximum number of pupils I like to work with is five because that is the number I as a teacher can best engage.

We begin on Monday morning and finish with a concert on Saturday night. The days are planned in the following way. Each morning, for approximately 45 minutes, we spend time examining our current abilities and what we want to achieve by the end of the week. Every day starts with this exercise and the content follows as described in the previous section. The pupils are asked to put their reflections down on paper but they do not need to show them to me unless they want feedback.

After the first 45 minutes we move, either in dance, stretch or yoga, in order to get in shape for the instrumental lessons that follow. In the music lessons, each individ-

ual aims for the highest level of concentration. The pupils listen to each others' lessons if the individual student agrees to this. However, after some days everyone is so busy practicing or taking a walk to digest impressions that participation in other students' lessons diminishes.

In the evening as a group, we watch the videos we made during the day. We listen to the music played during the lessons and also discuss the art of stage-performance. The videotapes are a fantastic compliment to the other teaching. At the end of the day we use one hour for relaxation and mental preparation for the concert on Saturday.

After two days in the course the energy always drops somewhat. Very often the lessons on Wednesday involve discussions about life and the problems that the pupils experience. The energy lifts on Thursday and climaxes on Saturday. The pupils have time at the end of the week to go through their concert mentally two or three times, completely relaxed, lying on the floor or on mattresses. Most of the fears that arise before a concert are illusions and should be regarded as such; in that way, it becomes possible to let go of fear. All pupils understand my goal for the course which is that everyone plays in the concert one level higher artistically and technically than that already achieved. The result is superb!

Since I began this program, I have been careful to follow up by letter and telephone. Even if the pupils do not choose to come back, they have benefited by the program. Some have returned up to five times. Many realize that they no longer need me as a teacher but rather as a mentor. This development has made me very happy! The possibilities of working in a group can not

be overestimated as the pupils give each other great support.

Another way I have been using mental training with musicians is to spread sessions out over a longer period of time. Five to ten musicians meet eight times over the period of four months. These meetings are two to three hours long every second week. Between the meetings, the participants work on stress control, relaxation, self-confidence etc. During the meetings, all have the opportunity to share experiences and thoughts.

Mental training is a very important complement to traditional teaching methods used in musical academies and offers a developmental process for orchestras and ensembles. The training can and ought to be

seen as a health-promoting agent. Most illnesses today are related to stress and the most difficult stress is experienced when you have the feeling that you cannot influence your living and working situation.

Where love abounds, there is no fear - there the music flows and a mistake is only a single mistake, not a failure of the whole person. If we take responsibility for what we want and prepare ourselves well, we open ourselves up to that which is bigger than our ego. We can then let go of ordinary control and let the performance happen. In this state of mind it seems that another system of accounting operates where  $1 + 1 = 4$  not 2. In mental training, this is called an alternative state of mind. This is a grace filled time, joyous, inviting greater musical accomplishment.

## Developing a Personal Approach to Consulting

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**Po Lindvall, Mental Training Consultant, Sweden**

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### Abstract

In a personal narrative, Po Lindvall, a leading Swedish mental training consultant, describes the route to his discovery of sport psychology and mental training. He discusses the combination of important elements of Eastern and Western philosophies that have been integrated into his work with Olympic athletes and business professionals. Po believes in the value of embracing a learning experience that never ends and living with quality and he discusses how we can accomplish these goals.

### Origins of Value

When I was a teenager, I read many books about Zen, Samurais, Bushido and also Western philosophy. My thoughts covered a lot of ground and I questioned the way we are supposed to live: go to school, do our military service (at least in Sweden), work, get a pension and then wait to die. Doesn't sound very interesting, does it? I found other goals: to become a martial arts instructor and to teach people not only a "noble art of self defense" but to help them believe in themselves and be stronger physically and mentally. The one philosophy that attracted my attention from the beginning was that you would never stop learning. You could always improve your skills: physical, technical, teaching, as well as mental skills. A learning experience that never ends...this appealed to my curiosity and was an alternative to the expected lifestyle.

In martial arts there were many things I learned over the years; some were unconsciously learned, others were very clear to me. Three things were strongly evi-

dent. First, the way the martial arts instructor is a role model makes it easy for students to visualize what they want to be able to do technically and hopefully, copy a bushido-like behaviour. Second, goals are very clear. The long-term goal is a black belt and once that is achieved, higher goals or grades are possible. To achieve a black belt, there are short-term goals in terms of belts in different colours. It usually takes approximately half a year between belts. To earn a belt you have to learn and master a set of techniques. At each training session you set daily goals to be able to reach a certain number of repetitions or work on doing a technique better or to have a higher quality performance each time you perform. Integrated goal setting may be a good term for this process.

Finally, before a class, there is usually a short period of Zei-za or sitting Zen meditation. Most schools just do this as a ceremony today so that the meaning is lost, not only in the Western schools but also in China, Japan and Korea. But at the same time, there is much meditation in the prac-

tice itself – moving meditation. Perhaps sport at times is meditation too, but the difference is that Western sport or athletics has not understood the word or the concept, at least not in the same way as in Eastern religion or philosophy.

However, in sport psychology and mental training, there is an understanding of this concept and that is why I felt greatly motivated and enthused to go into this field. Another reason was that I had very good students in my martial arts classes, but they did not make it to the top. They were very good technically, but they did not win big tournaments. This was partially because I did not focus on training them to win; it was not important to me. Actually none of my students competed in the first four or five years that I ran the school. My philosophy was more Eastern than most Easterners at that time. When I wanted to try my own wings in competition, to see what I had learned, I changed my attitude toward competition and decided to let my students compete as well. Perhaps the pressure of the competitive culture was too great? However, I tried to teach my students to understand the meaning of mastering the self not others, mastering change not only focusing on outcome and mastering cooperation with the energy of the opponent not just using brutal force. But I did not have the tools at that time to make things happen the way I wanted.

I felt that mental training and sport psychology were what I needed to find the tools and the knowledge to reach some old goals. Very soon, new goals began to form, goals that were much more related to use of this new knowledge and my new awareness of the unconscious learning I received from martial arts training. I wanted to do what I had done from the start, help people grow as persons and at the same time be better at

what they are doing and feel better about themselves. I only slowly changed focus. I partially changed tools, but I mostly changed clients. In the beginning, it was only martial arts students and today it is athletes in different sports, business managers, company employees and others looking for advice. This transition began in 1980 and has been evolving since then. This has been a great process and making this journey has made my life worth living.

To reach the overall goal of helping people grow, I formulated some smaller goals, the first concerning skills and knowledge. “Talk the talk” is a learning or competence goal. It means learning more from research, experiences working with others and from clients. It means developing my own competence: “To dare is to have the courage to risk and lose something; not to dare is to die a little bit”.

“Walk the talk” is my performance or acting goal. To live what I teach is important in establishing trustworthiness. I think it would wrong to be able to deliver the services expected of a mental training consultant and not live as I teach. At one of the seminars at the second World Congress of Mental Training and Excellence in Ottawa I asked, “Isn’t the goal in learning how to set goals being able to make the road the goal?” This is how I feel about the process I am living in. It is not an exam or a specific mission that is the goal. It is the process of learning, growing and helping others grow that is the goal – the process in itself. This does not stand in the way of me having goals of specific missions or a high mark on an exam rather it is that the process and specific goals are in better balance. This is also something that I try to teach and I think that those who understand this feel and perform better – at their optimal level. They usually

find strong motivation for what they are doing as well.

"Walk the walk" is an outcome goal in a way. It means that the "talk" - the affirmations and imagery have been integrated into behaviour. Training has been effective when desired habits have been established, when you no longer need to think about how or what you are doing - your "autopilot" is programmed and actions are on track. This is important for me in building trust because if I do something myself that does not correlate with what I teach or say, my actions will override my spoken message. As the saying goes, "A picture is worth a thousand words" which can be translated into, "Our actions say more than a thousand words".

I consider myself a guide who clients might meet on their journey. They have to make all the decisions about of what they feel is the right way for them to go. I hope to influence them to try various kinds of tools. They then learn how to use them and which are most effective for them. I try to be open to all aspects of experience we discuss and show respect for their experience and thoughts. Some clients like more help and advice. Others merely want someone to try their views on and provide feedback. I ask questions to have them formulate their own thoughts and to make them more aware of what they are doing when they are doing their best. Last but not least, I want to learn from them myself.

## **"Leading Stars"**

I think that it is important to consciously formulate the basic values we want to live by. This is something that I have been focusing on as a consultant in business. In fact, this is usually the first exercise I will go through with a management group or team in a company. As an individual, I think that it is also important that we think

about and consciously formulate our values and not only those we live by but also those we would want to live by, if there is a difference between those. If there is, that gives us a good clue of what to work on in our personal development. I call these values "leading stars". There should not be many, just three or four, but then you can define them in a way that they mean more to you personally than the words alone imply.

My personal and consulting values are the same; I could not be one person privately and someone else professionally. Of course I can have different roles in different situations or groups, but I need to remain true to myself in order to keep my self respect and be trustworthy.

The values I choose to live by are openness and respect. Openness includes honesty, flexibility, a willingness to listen to others (even those I may not at first respect), trust in my intuition and the guts to follow the flow. In valuing respect, I aim to show others this quality and to continue to work on my self respect. This will increase by me living by my values, philosophies, visions and goals. Striving for these aims will earn me respect because of what I am doing and for who I am.

## **Quality of Life**

"Life quality creates success" is the vision I try to live and work by. Quality is a trendy word in business today, but I think in the quest for quality, quality of life is set to the side. Many people today are suffering from stress, lack of motivation or are looking for a meaning in what they are doing. The quest for owning the most expensive "toys" at the end of one's life or making the biggest profit has to be questioned or the environment, mother earth, will suffer greatly. This ethic relates to consulting with athletes as well. Is it worth anything to be faster and

faster? When do athletes reach the point where they have forgotten about the fun they had when they began in their sport? Can sports be more than just sports? Can they be a way to grow as a person and learn to understand ourselves better? I think they can and I think that Western sport has much to learn from the philosophies and the way goals are selected in the martial arts.

In the martial arts, practice is from the beginning focused on learning and mastering a technique and not in winning over an opponent but over yourself. I think that the biggest problem that we face in the West is the culture of competition and competitiveness which sport fosters. I especially question popular sport because of the message that is sent through the media. I feel that the most important contribution I can make is to get people to be more cooperative in their thinking and behaviour.

We need to change our culture into a cooperative one. In my work with local companies and athletes, I try and make them aware of outcome oriented goals and help them see another way. The funny thing is that they usually do better when they let go of the “being better than others” attitude and focus on the task. I like this paradox – when you stop seeing winning as everything and focus on doing your best, you start to have the best results of your life and many times you even end up actually winning! (This sentence in itself has a strange kind of double message in it because the winning stands out as important in the end after all. Well...you can't win them all!)

Focusing on the task and keeping the fun in what you are doing have two positive aspects. You will be better at what you do, thus resulting in better quality in the process or in what you produce. But they also result in better quality of life through having more

fun and being better motivated. I think it works in both sport and business.

### **“The Inner Helicopter”**

My philosophy is to “Do the right thing in the right way”. At times you discover that you are doing a lot of things, but do they really matter or get you where you want? We need to see the big or holistic perspective to be able to decide what is important and which way we should take. I think we need to take a ride in our “inner helicopter” to get a view from above almost daily, so that we do not get a chance to forget where we are going but also come to understand why...or see good reasons why we have chosen the road we are travelling at the moment. If we do this, I think we have a better chance to see if we made a wrong turn or even when it is time to make a transition in life. At the same time, this “helicopter ride” may be a good way to evaluate what we have done, to get things in perspective and see how we can improve our actions - to do what we have chosen to be the right thing to do, the right way.

To be better at that, I have a daily overall or awareness goal. Every day I want to learn something new and really understand what I have learned. The “helicopter ride” idea must have grown out of this philosophy. The purpose behind this goal is that I do not want a good learning experience to be wasted. Many times you learned a good lesson but too soon it was forgotten in the multitude of information and experience that followed. We need to think over and evaluate what we learn and experience to really be aware of it. This can have two effects. First, it ensures that potential learning does not get lost on the way. But also we may see something more than we did at first. We might reach the goal of understanding what we really learned and that can be something other than what we first thought.

## **Applications**

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## Mental Skills of National Hockey League Players

Stuart Barbour and Terry Orlick, University of Ottawa, Canada

Stuart Barbour is a teacher at Corrine Wilson High School in Ottawa, Canada and Terry Orlick is with the University of Ottawa.

### Abstract

The purpose of this study was to explore the mental skills used by professional ice hockey players and determine the extent to which Orlick's "Wheel of Excellence" (1992, 1996) could be applied to these athletes. In-depth interviews were conducted with ten National Hockey League players who had collectively played over 4,500 NHL games, and scored 1,025 goals. The results indicated that Orlick's "Wheel of Excellence" elements (commitment, belief, full focus, positive images, mental readiness, distraction control and constructive evaluation) were common to all elite athletes interviewed. The element of fun and enjoyment was also found to be significant for NHL players. The preservation of rich quotes offer valuable insights and strategies for excelling. A survey of the mental aspects of professional hockey was also completed by 27 NHLers to corroborate the relative importance of each of the mental skills identified in Orlick's model. Overall the results were consistent with other recent research into the mental aspects of high level performers.

### Introduction

This study examined the mental skills associated with professional ice hockey as reported by active National Hockey League (NHL) players. These players are elite hockey performers who participate in the world's top professional hockey league. The National Hockey League places unique demands on their athletes. NHL players compete in 84 regular season games plus between eight and ten pre-season games and up to 28 play-off games, all between mid-September and mid-June. The players have an extensive travel schedule, playing teams in four different time zones. The league is also high profile and the players must cope with performing and living in the public eye.

### Literature Review

Applied studies related to the mental aspects of professional hockey are limited. Orlick, Hansen, Reed and O'Hara (1979) studied the psychological attributes of high caliber hockey players from the perspective of professional scouts, coaches and managers. Open-ended interviews were conducted with these professionals to determine which psychological attributes they saw as being necessary for a player to "make it in the pros". Four major factors related to elite hockey performance emerged from the interviews:

1. desire or determination
2. self-sacrifice or being a team player
3. coping well with pressure or maturity
4. coachability or dependability.

This study offered insight into what coaches and scouts were looking for in players to “make it in the NHL” but failed to explore the players’ perspective on the mental skills required to play professional hockey. Gallmeier (1987) conducted a participant observation study of the emotional preparation of professional hockey players in the International Hockey League (one level below the NHL). He concluded that a unique feature of professional hockey players’ mental preparation “involves... developing a diffuse state of emotional readiness” (p. 359). However, specific insights on the internal mental readiness patterns were not presented.

Orlick (1992,1996) proposed a model of the psychology of human excellence, based primarily upon self-reported experiences of world class athletes. Orlick reported that there were seven basic elements that allowed humans to excel in their chosen pursuit. The elements were: commitment, belief, full focus, positive images, mental readiness, distraction control and constructive evaluation. Orlick’s “Wheel of Excellence” was generated from an immense volume of qualitative research and practical experience working with elite athletes, as was the work of Loehr (1983), Harris and Harris (1984), and Weinberg (1988). The Orlick model however, represented the first move toward a holistic grounded theory of the mental skills required to excel in a variety of sports. It therefore represented a good starting point from which to examine the mental skills of elite hockey players.

The comprehensive nature of Orlick’s “Wheel of Excellence” became clear by examining the mental skills that other researchers have found among elite athletes and by recognizing that virtually all of the important skills identified by these researchers could fit into Orlick’s model (see Figure 1). This confirmed the inclusive na-

ture of the “Wheel of Excellence” and indicated that it represented a coherent framework from which to examine the mental skills of elite hockey players.

An interesting and complimentary source of information about the psychological factors necessary for excelling in professional hockey came from top athletes’ biographies. They provide an “insider’s” perspective on excelling in professional hockey which supported many of the mental elements of success cited by Orlick (1992,1996). Ken Dryden (1983) spoke of the mental discipline or focus that is required to be a professional goalie, which included “consistency, dependability, and the ability to make the big save. ...What these qualities suggest is a certain character of mind, ...a mind emotionally disciplined, one able to be focused and directed, a mind under control” (p. 119). Oliver (1991) outlined Mike Ricci’s constructive evaluation process. “He goes over the game in his mind. He is ruthlessly assessing his own performance so it will be better next time, so he won’t make the same mistake twice” (p. 160).

McDonald and Simmons (1987) discussed the importance of belief. Early in his career in Toronto, Lanny McDonald was in a slump and experiencing self-doubt about making it at the professional level. At that point an article appeared in the Toronto Star, written by a respected hockey reporter, saying to everyone, “Give the kid a chance and let his potential shine through.” McDonald explained, “The article came out on the day of a game, and I must have read it about ten times... then headed for the game. That was one of the turning points. It was as if people were looking at me differently. It gave me renewed confidence. Someone out there, other than my wife, was telling me I could make it. That was all I needed...” (p. 29).

Gretzky and Reilly (1990) referred to the power of positive images. During the 1984 Stanley Cup play-offs, the Edmonton Oilers had created "The Door". Gretzky explained, "We taped a lot of famous pictures on that door: Bobby Orr, Potvin, Beliveau, all holding the Cup. We'd stand back and look at it and envision ourselves doing it. I really believe if you visualize yourself doing something, you can make that image come true" (p. 82). The Oilers won the Cup for the

first time that year and as he explained, "To this day I can still see Beliveau of the Canadiens picking it up and holding it over his head. I must have rehearsed it ten thousand times" (p. 252).

The fact that top professionals allude to the importance of the mental game and that no systematic studies have been conducted on mental skills used by NHL players demonstrated the need for the current study.

**Figure 1.** Links Between Orlick's Model of Excellence (1992/1996) and Mental Skills Associated with Elite Athletes

	Orlick (1992/1996)							
	Commitment	Belief	Full Focus	Positive Images	Mental Readiness	Distraction Control	Constructive Evaluation	
Mahoney & Ayner (1977)				Mental Imagery	Self-Verbalizations			
Orlick et. al. (1979)	Desire & Determination					Copes Well With Pressure		
Loehr (1982)	Self-Sacrifice	Self-Confident	Mentally Focused Alert Automatic		Optimistic	In Control Low Anxiety		
Hemery (1986)				Visualization & Imagery	Pre-Competition Planning	Concentration & Control		
Orlick & Partington (1988)	Commitment	Confidence	Competition Focus Plan	Imagery Training	Pre-Competition Focus Plan	Distraction Control	Constructive Evaluation	
Weinberg (1988)		Highly Confident	Automatic Focused & Concentration			In Control		
Harris & Harris (1989)			Concentration	Imagery	Self-Talk	Avoiding Obstacles		
Mahoney, Gabriel & Perkins (1989)	Motivation	Self-Confidence	Concentration		Mental Preparation	Anxiety Control		
Botterill (1990)			Focus	Visualization		Refocusing		
Hallowell (1990)		Confidence	Focus Concentration		Self-Talk	Refocusing		
Cohn (1991)		Self-Confident	Narrow Focus of Attention Automatic			Immersed in Present In Control		

## Method

### Statement of the Problem

The purpose of the study was to explore the mental skills used by NHL players. Two assessment measures were developed for the purposes of this study. "The NHL Player Interview Guide" served as a guide for questions concerning the mental aspects of practice and competition, and asked players to reflect on best and worst perform-

ances. Orlick and Partington's (1988) interview guide served as a model for the interview protocol.

The players also completed "The Mental Aspects of Professional Hockey Questionnaire" which was created to evaluate the relative importance of the components of Orlick's "Wheel of Excellence". The survey asked for the following informa-

tion: number of years in NHL, number of teams played for, number of seasons in the minors, age, as well as self-ratings and ranking of the importance of Orlick's seven major elements of excellence. Each mental skill was presented with a short description or definition. The athlete was then asked to respond on two 10-point Likert scales, the first to rate the importance of that mental skill for professional hockey players and the second to self-rate either their ability or use of that mental skill.

After completing a pilot study, it was evident that "having fun" and "enjoying hockey" were important for professional hockey players. Therefore, this was added as an eighth item to the "Mental Aspects of Professional Hockey Questionnaire".

## Procedure

NHL participants were contacted and asked if they would be willing to be interviewed about the mental aspects of professional hockey. Rapport was established by taking time to meet each player at the practice rink or fitness club a few days before the interview date and engaging in casual conversation. Prior to the interview the researcher consulted the NHL's Official Guide and Record Book to become familiar with each player's career.

Before conducting the interview the researcher explained the purpose of the study, guaranteed their anonymity and asked permission to tape-record the interview. In all cases permission was granted.

It was easy to get the interviews underway since the players enjoyed talking about their experiences in hockey. Players who were interviewed in their homes appeared at ease earlier in the interview than players interviewed in more public places. The interview times ranged from one to 1

1/2 hours. At the end of the interview players often provided the researcher with a personal contact for the next player to be interviewed. This referral system proved to be very important in the world of professional sports where personal phone numbers and addresses are often guarded secrets.

The interviews were transcribed verbatim. An independent reviewer checked each transcript against the original audiotape. Transcripts were then returned to the players. Each player was contacted by telephone and asked to ensure that the transcript accurately represented their accounts and opinions. All players confirmed the accuracy of their transcript.

## Questionnaires

All of the players interviewed also completed "The Mental Aspects of Professional Hockey Questionnaire". This was done at the end of their interview to ensure that the mental skills identified in the survey did not influence the interviewee during his interview.

## Participants

### Interview Sample

Interviews were conducted with ten active National Hockey League players. The players ranged in age from 21-35 years, the mean age being 27.2 years. The interview sample represented seven different NHL teams. Six of the participants had been first round draft picks, three had represented Canada at the World Championships and one had played in the 1992 Olympics. Collectively they had played 4,619 NHL games, scored 1,025 goals and received 1,511 assists.

### Questionnaire sample

Twenty seven active National Hockey League players completed the "Mental Aspects of Professional Hockey

Questionnaire". These players represented 12 different NHL teams and ranged in age from 21-35 years, the mean age being 27.2 years. They had played an average of 6.8 NHL seasons and had spent an average of 1.2 years in the minors. Seven of the 27 players had been selected for the Canada Cup team, which is considered to include the best players in the NHL. Due to the higher level of status and accomplishment of these seven Canada Cup players, we separated them for analysis and compared their questionnaire responses to the remainder of the NHL sample.

## Data Analysis

### Qualitative analysis

The qualitative data analysis was carried out in two major steps, first to determine whether Orlick's (1992,1996) "Wheel of Excellence" could be applied to professional hockey players, and second to see if NHL players identified any mental skills which were not included in the Orlick's model.

A single page summary of Orlick's components of excellence was created. Each transcript was then read a number of times to become familiar with its content. The data organization stage involved decontextualizing each transcript by breaking it into representative quotes which clearly fell within major components of Orlick's model. Any part of the transcript which did not fall within one of the major components of excellence was saved for later analysis.

In order to establish the reliability of category identification an inter-rater reliability check was conducted. One other researcher familiar with Orlick's work was provided with the model summary page and independently coded two interview transcripts. There was 100% agreement on

which mental skills were evident in each transcript. The researchers then compared the category labels which they had attached to specific text passages. Inter-rater reliability was 90%. Wherever a discrepancy existed it was usually a passage which included more than one mental skill and its label was easily cleared up with a short discussion.

An inductive content analysis was conducted on the remaining parts of the transcripts which did not clearly fall within the seven elements of excellence. This analysis followed the guidelines outlined by Coté, Salmela, Baria and Russell (1993). The only additional category which emerged from this analysis was fun and enjoyment.

## Results and Discussion

### Questionnaire Study

#### Opinions on the importance of mental skills

All participants were asked to rate the importance of the following mental skills for playing professional hockey (see Table 1). The results are presented for the NHL players selected for the Canada Cup, the remainder of the NHL players and all players combined.

#### Self-ratings of mental skills abilities

The players were then asked to assess their own ability to apply the following mental skills (see Table 2 below). Orlick (1992) maintained that "To excel at anything one must have, or develop a high level of commitment..." NHL players who excel at hockey clearly have a very high level of commitment. The ability to fully focus during practice was the mental skill which the NHL players appeared to have the most difficulty achieving. This may be

**Table 1.** NHL Players' Opinions of the Importance of Mental Skills for Professional Hockey

Mental Skills Rank Ordered	Canada Cup Players M	NHL Players M	Combined M
Commitment	9.71	9.52	9.56
Full Focus	9.57	9.35	9.46
Belief	9.42	9.35	9.35
Fun and Enjoyment	9.71	9.21	9.35
Mental Readiness	9.71	9.10	9.27
Distraction Control	9.42	9.05	9.19
Constructive Evaluation	8.42	8.67	8.60
Positive Imagery	7.85	8.30	8.27

Note: Based on ratings on a 10 point scale: 1= Not Important, 10= Extremely Important

**Table 2.** NHL Players' Personal Assessments of their own Mental Skills

Mental Skills Rank Ordered	Canada Cup Players M	NHL Players M	Combined M
Commitment to hockey	9.42	9.15	9.27
Belief in potential	9.14	8.85	8.89
Fun and enjoyment	9.57	8.57	8.85
Mental readiness for games	9.42	8.42	8.79
Full focus for entire games	9.28	8.00	8.39
Constructive evaluation	8.42	8.20	8.35
Distraction control	8.42	7.85	8.08
Mental readiness for practice	8.00	7.47	7.71
Quality of mental imagery	7.42	7.60	7.54
Full focus during practice	7.14	6.95	7.08

Note: Based on ratings on a 10 point scale: 1= Poor, 10= Excellent

**Table 3.** NHL Players' Season Long Assessments of Mental Skills

Mental Skills Rank Ordered	Canada Cup Players M	NHL Players M	Combined M
Games fully focused	91.85%	85.11%	86.96%
Games constructively evaluated	82.25%	70.83%	74.77%
Practices fully focused	67.57%	73.61%	70.36%

explained in part due to the relatively high number of games and practices an NHL team will hold over a season. Botterill (1990) reported that "In 1989-90 the Chicago Blackhawks played 110 games and put in approximately 250 days of training, travel, and performance"(p. 365). In this environment, focusing fully for high intensity practice everyday could prove to be a difficult or exhausting challenge, especially for those who play most during games.

The players also personally assessed the percentage of practices and games for which they were "fully focused" as well as the percentage of games for which they did a complete constructive evaluation over an entire season (see Table 3).

When reviewing the players' ratings of the various mental skills, although the sample was small, it is clear that the Canada Cup players had higher ratings on most

mental components than the “regular” NHL players. It is also clear that based on their self-ratings, most players had room for improvement. The weaker mental skills appeared to be related to the use of imagery, constructive evaluation and full focus for practice. The imagery question is an interesting one, as most great individual sport athletes use positive imagery in very refined and extensive ways. This is also the case for NHL goalies. Perhaps the overall lower rating with the NHL players and Canada Cup players is that it has not been a part of the tradition in team sports, it is not as relevant for their role in the game or the best players judge themselves more stringently on self-ratings than their peers.

The ratings of constructive evaluation indicate that few players do thorough constructive evaluation of every game. This may be partially due to the extensive number of games. However, great professional golfers also have extensive schedules and do evaluate every round, every tournament. Improvement in this area may be of practical value for these team sport athletes.

The slightly lower ratings on full focus for practice for Canada Cup players may be directly related to the extensive ice time in games and fatigue as the season unfolds. Having worked with an NHL team for several years (second author), it is clear that the best players are very focused and carry high intensity to most practices. However, after a number of games in a row, extensive ice-time, and travel, they are hurting more and have less to give in practice. It then becomes a question of whether it is more important to practice well or play well that night or the next day. Usually at that point, rest will be more beneficial for those players’ game performance, than will be practice. It may also prevent over-training or injury. When faced with very demanding

schedules such as those in the NHL, often the best way to facilitate high quality practice is to allow more high quality rest, at least for those who are playing most.

### **Interview Study**

The deductive qualitative analysis of the interview transcripts revealed that nine of the ten players clearly referred to using all seven of Orlick’s (1992,1996) elements of excellence, while one did not report using positive imagery.

The inductive content analysis on the remaining text revealed the existence of a “new” component of excellence: fun and enjoyment. All ten players indicated that fun and enjoyment was an important part of their hockey experience.

### **Commitment**

All of the NHL players interviewed demonstrated a high degree of commitment to the game of hockey. It was evident from the interviews that hockey was the center or focal point of their lives. The players were committed to excel and were driven by the desire to be the best that they could be.

*I've always trained hard for hockey, just because of the attitude I was taught when growing up, that whatever you do you do 100%.*

*...hockey was always my number one priority and the most important thing, everything else was second to hockey and it has remained that way. ...As long as I can remember it has been my dream to play in the NHL.*

These athletes set a high level goal or target to aim for in hockey. All could recall a specific age when they realized it was possible for their dream to become a reality. For nine of the subjects this occurred between the ages of thirteen and sixteen, and

for one it did not occur until his third year of university hockey. While many boys may dream of playing pro hockey the NHL players interviewed were highly committed to act on this goal and prepared to make the necessary sacrifices during their teenage years. These sacrifices included limiting their social activities, training year-round and even dropping out of school.

*...[to make it to the NHL] you have to make a lot of sacrifices along the way and growing up which is tough. I had to look down the road and say it's a good possibility it's going to pay off. What was important was just being strong mentally and not giving up on what you want. If you want to play in the NHL you're going to have to sacrifice some things. Friday nights some people might be going out to a party and I would have a big game the next day, I couldn't really afford to go out to the party.*

While the desire to play in the NHL was the long-term goal, the players had developed the ability to break their pursuit into smaller goals. This requires an ability to set specific goals at a young age. Orlick (1992) explained that, "Commitment is enhanced when goals are viewed as highly worthy and within grasp" (p. 111). Halliwell (1990) reported using hockey-specific goal-setting forms in his consulting with both Canada's Junior National Hockey team and a NHL team. The importance of goal-setting indicates that it is a major component of the commitment to excellence.

*The first time I realized I had a shot [at making the NHL] I really focused on it, I gave myself a plan. I wanted to get a scholarship in the States, I wanted to get drafted first year, and to play some International Hockey, and maybe play in the Olympics as my fourth year. I gave myself a little plan to develop and work up to.*

### Belief

All of the players interviewed projected a strong belief in their potential as a NHL player. This confers with Weinberg's (1988), Loehr's (1983) and Cohn's (1991) observations about successful athletes' belief. Orlick (1992) reported that "The highest levels of personal excellence are guided by belief in one's potential, belief in one's goal, ...and belief in one's capacity to reach that goal" (p. 112). The NHLers interviewed projected strong personal belief in their potential and abilities as professional hockey players.

*Hey you gotta believe. If you don't think you've got the talent, if you don't believe you're going to make it then it's no use even trying.*

*One thing I've found is that all the best players are really strong-willed. They all have a great deal of confidence in their ability, not conceit or cockiness, just confidence in their ability. A young guy coming up, he knows what he can do, he knows what he has to do, and he really applies himself on the ice. The player might not necessarily stand out on the scoresheet but that part will stand out.*

Eight of the ten players indicated that their parents' belief in their ability played a significant role in their hockey career. Orlick, Hansen, Reed and O'Hara (1979) and Hemery (1986) also reported that parental support was important to an elite athlete's development.

*My Dad pulled me aside when I was 13 and he said to me, 'Listen, you've got to let me know right now if you think you can make it? If so I'll stick with you. If not, well then that's a different story.' I told my Dad right then, 'Well I'd be lying if I said that I didn't think that I could make it. I'm small,*

but I have faith in what's going to happen to me. You know Dad, I'm going to go for it,' and from that point on my parents stuck with me right through it.

A number of the players indicated that belief in their potential was bolstered by reports from central scouting agencies, positive media coverage, appointments to all-star teams and words of encouragement from their mentors. These external agencies served to increase the NHL players' confidence and belief.

*...you start to believe in yourself and your confidence builds when [the scouts] are looking at you. If you believe that you can do it and you believe that other people have faith in you, then you're going to perform well, but if you don't think that other people have confidence in you then that's going to become a barrier and you are not going to have confidence in yourself.*

One common experience that nine of the ten players shared was playing on a team with older players. This experience often confirmed their belief in their hockey potential at a young age.

I went out as a 14 year old and made a Junior "B" team. So I'd already had it ingrained in my head that I was moving up levels at a reasonably good clip and I was reasonably successful. So as a 14 year-old I was playing against 19 and 20 year old men. I think this was good because it was just the next step for me. I mean I was big at 14, I was 6'1" - 190 pounds so I wouldn't have improved playing against kids that were 5'5".

When confidence ebbed some NHL players enhanced their belief by trying to excel during practice sessions, and by using positive self-talk strategies, or through reas-

suring talks with veteran players. Halliwell (1990) reported that professional hockey players' confidence could be improved through self-talk techniques. He stated that when players were asked to analyze their self-talk before and during games, "the players quickly realized they were saying a lot of things to themselves which were negative or that created doubt and anxiety" (p. 372). Generating and maintaining belief is an important mental skill in a professional sport setting.

*Right now, I am not playing a lot and it's mentally tough. I try and build my confidence up through practice. I just try and do extra things after practices and build myself up during practices.*

*It sounds crazy but during the summer I would wake up and say to myself 'you're a good hockey player', just reminding myself to get the confidence and to mentally prepare myself for an entire season and not let setbacks bother me.*

### Full Focus

All of the players felt that the difference between best performances and poor performances were related to their mental state or focus within the game. However, many players found it difficult to achieve that best mental state on a regular basis.

*[Describing a best performance] You're aware of everything that's going on,... your on-ice focus is phenomenal. You're so into the game. You wonder if someone like Gretzky or Lemieux is like that all the time, maybe that is what sets them apart. Because on a night like that you wonder ...I played so well and so many things went well, everything, offensively, defensively, read the play well, ...you know I could be a great player if I could do this more often. Why don't I do this every game?*

There was agreement that playing well in the regular season required one to focus, but that play-off hockey demanded an even higher degree of focus.

*[Play-off hockey] is a little more final... all you do is focus on that one game and forget about everything else. Just play it and play as hard as you can and at the end of the game you usually feel pretty tired, you feel lousy. Then your entire train of thought goes to ...the next game. Everything else in your life is tuned right out. The next game is the most important thing. Come play-off time that's all there is. It is hockey all the time... It's almost a selfish time... you stay home and rest between games and you have a lot of meetings. You tune everything out, all the daily routine, just shuts down for however long you're in the play-offs.*

Orlick (1992) explained that, "To excel at anything, one must develop the ability to focus in the present and maintain focus in the 'here and now' for the duration of the action-oriented part of the task..."(p. 115). A number of the players had developed effective strategies to maintain a present focus. One technique which was shared by a few of the players involved breaking the game down into a number of manageable segments. Other players broke their game down into simple tasks, which freed them to perform without thinking about too many performance-related details.

*There are only three hours of work every night and that's what you've got to try and base yourself on. You can break it down, there is three hours of work, and divide it into three periods, you get maybe five or six shifts a period... you break that down into 45 seconds a shift. You just go out there a shift at a time, for five or six shifts a period and then a period at a time,... for*

*three periods. You can break it down and it makes it seem that much easier.*

*I'm a defenceman and so if I do to the best of my ability the 3 things that I bring to the team every night then I'm doing my job. The 3 things I try to do every night are strong in the corner, strong in front of the net and get the puck out of our end. Simple as that for me. But somewhere along the line if I can add a few other things that I do mediocre, then I've really done something to help the team.*

Some players were faced with the additional challenge of maintaining full focus while seeing limited ice-time during a game. Botterill (1990) and Halliwell (1990) found their consulting work to be especially effective with players on the roster waiting for a chance to play more regularly. A rookie NHL player offered this insight which explained the strategies he used to maintain focus while receiving limited playing time during games.

*...right now when I do play I'm not guaranteed a lot of ice time. So that makes it tough to stay 'in' the game. I'm always talking to myself, 'stay in it, stay upbeat.' Yelling a bit on the bench helps gets the guys going, which in turn gets me going to stay focused and keep my mind in the game, which is hard when you're not playing. Over the course of a game if I'm not getting a lot of ice time I always try and stay as focused as I can. If I realize I'm drifting a bit I try and pull myself back by talking to myself.*

### Positive Images

Imagery, mental rehearsal or visualization are mental skills which were used by professional hockey players. All but one of the players discussed the use of mental imagery. Most professional hockey players used positive imagery as a mental prepara-

tion tool. It was an integral part of the pre-game routine.

*I spend about 20 minutes before the game picturing myself in my mind going through every possible scenario of the game. Me coming out of a one-on-one where I take the guy and the puck gets picked up by one of our guys, ...me in their end taking a shot that goes right by the goalie. I imagine myself as invincible.*

*I try and get a mental image of who I'm going to be playing against. I was primarily a checker last year, so if we're playing a real good team where they have a Gretzky or Lemieux, I'll start thinking about things that I can do to help the team in stopping them. ...'What am I going to do if Gretzky goes behind the net?' or 'if Lemieux starts to steamroll down the wing, am I going to go right at him or should I pick up one of his wingers because I think he's going to pass off', that type of thing.*

At the rink I'll get in my long underwear,... and sit there for a good 20 minutes and just think about good things. ...I try to dwell on just good plays in general. A lot of times I picture my feet being quick underneath me, because I have quick feet then the rest of my game will just come. If I'm skating well I can hit, and shoot, I feel like I'm in the game then.

One player discussed using imagery during the action in games as a means of preparing to act on desired performance decisions. Some players were able to pre-experience performance outcomes within a dynamic environment.

*This year my coach really introduced imagery to me. He said when you're skating back for the puck go as hard as you can and image what you're going to do, and take a*

*look back before you get the puck and see where everybody is. And turn and burst to the puck with an image in your head of what you're going to do. ...That was one of the biggest things I learned this year. ...Image out on the ice right before you get the puck - what you're going to do with it.*

### Mental Readiness

Many of the NHL players felt it was important to carry a positive mental perspective into all situations. They identified a number of factors in their careers which were beyond their control, such as the media, coaching decisions, salary negotiations, being sent to the minors, trade rumours, and trades. The players felt it was important to develop and maintain a positive perspective in spite of these factors. Players attempted to do this by using positive self-talk and positive mental images, as well as looking for the positive in all situations.

*I always take the positive out of every situation, even in the worst scenarios I always find positives and go out and turn it around to benefit me. ...In Toronto I sat for 35 games straight with really no explanation. But in those 35 games as good as shape as I was in, I got in better shape. So when I got my trade, I owed it to myself to finish the season on a strong positive note.*

Mental preparation for games and practices was the mental skill most discussed by hockey players. The players shared many details about their game day and practice day routines.

Most elite hockey players followed a very consistent, individualized procedure to ready themselves for games. The regimental nature of professional hockey ensured that certain parts of the game day routine was similar for all players (e.g., morning skate,

equipment check, pre-game team meeting, pre-game meal, an afternoon nap, on-ice warm-up). The internal nature of the NHL players' mental readying procedures were similar to those used by the best Olympic athletes. Orlick and Partington (1988) reported that Olympians used pre-competition plans which "included mental imagery, warming up well physically, positive thoughts, and reminders on what had previously worked well" (p. 115).

I think about the game all day. What my role will be and what I'm going to do. ...this is my tenth year in the league and I have a pretty good idea about a lot of the guys on the rosters, so I know each one's characteristics. I know what to expect from each player. ...[This Saturday] in Montreal I'm probably going to play against one of their bigger left wingers who I usually play against and I know it's going to be a tough night because we're going to be hitting each other and knocking the shit out of each other... So I get prepared... to make sure as soon as the puck drops I'm ready to go.

There was also a delicate balance between knowing enough about who you are playing against and thinking too much about them. One well-established player offered insight about the problems associated with over-preparation.

*[Our coaching staff] gives us all kinds of video about our opponents before games. They give us so much stuff on the other team that sometimes you get so worried about what they're going to do that you don't prepare yourself for what you're going to do. ...If I'm too worried about what everybody else is going to do I don't think enough about what I'm going to do. So lately I've just said, 'O.K. we're playing the Penguins, big deal'. I want them to be*

*prepared for what I am going to do and for them to worry about what I'm going to do.*

One of the difficulties many NHL players faced was being mentally ready for every game of the season. All of the players interviewed indicated that they tried to be ready for each game but the demands of the schedule made this difficult, if not impossible. One veteran player offered insight into the challenge of mental preparation in the NHL.

It's tough to be mentally ready 80 nights a year. If you're doing it 60 nights a year you're doing very well. You're going to have nights where you're tired, physically and mentally. Or the schedule may be driving you crazy and so you may think, I just don't feel like being here. But most of the time I'm ready. I try to be every night.

Orlick (1992), Loehr (1983), Weinberg (1988) and Cohn (1991) each reported that the ideal performance state required one to be physically ready and mentally relaxed. A top NHLer described the special state he attempted to reach as follows:

*I just try to relax between shifts, just sit and relax and catch my breath. I try to relax in between periods, just sit and relax. ... You're relaxed but also kind of tense. It's not like you're kicking back and watching TV. You've got your adrenaline flowing and you are into the game but you have to catch your breath and regroup. You feel confident. You're somewhat tense and intense, but at the same time you are comfortable. Comfortable may be a better word than relaxed. I just sit down and wait to go again. I'm not so uptight that I'm gripping my stick. On the other hand I'm not that relaxed that my heart isn't pumping. I'm still aware of everything that's going on.*

One young professional offered insight into the difference in preparing for Junior hockey and the NHL. There is a shift away from team preparation strategies to a responsibility for individual mental preparation. This adjustment might explain why some rookies have problems adjusting to the NHL.

*As a junior and on the World Junior team, everything was done as a team, you're always together as a team, you eat as a team, you prepare as a team. But in NHL, getting ready for a game is basically done on an individual basis. You have to learn to get yourself prepared.*

### Mental readiness for practice

While NHL teams may play over 100 games in a season, practices are still very important for team and personal development. A veteran of the NHL explained the importance of practices in simple terms.

*Well, You've got to use practice to improve - it's as simple as that. And I think I've become a better player in the NHL because of the practices that I had in the middle stages of my career.*

Hockey's elite has developed a range of strategies to mentally prepare themselves for practice. Some players carry a high intensity focus to practice because they commit themselves to work hard and "get something out" of each practice. Some teams have also shortened practice sessions to improve the quality and effort that players bring into practice.

*Once I am prepared... I like to go out on the ice and work hard and get things done... I try to come to the rink every day and get something out of it. I try to practice hard and feel good when I get off the ice. I try to do the same thing every day, every*

*game, every practice. ...I work hard every day and it's just become a routine.*

*The [coaches] shortened up practice last year, they think if we can go hard for 45 minutes to an hour, depending on the situation of games that week. That's a key because if we know we are going to go shorter we go out harder and that prepares you for the game. Preparing for practice mentally prepares you for the game.*

Orlick (1992) reported that in order to excel one must "take advantage of learning opportunities, practice and play with focus and intensity" (p. 116). When players were struggling in league play they would often prepare for practice as if it were a game, while others would feed off the energy of teammates in order to get into practice.

*If I've been in a real slump. ...I may get to practice early, I want my equipment to be organized and everything proper. A lot of times for practice I don't worry about my sticks, whether I re-tape them or anything. I'll do all that and prepare for it almost like a game, take it real serious. I'm a lot quieter because it's on my mind and I want to get out and work on something.*

*Somedays you just don't want to practice. I just played three games in five nights, I can't practice. But you know you have to. ...the first couple of drills you're going through the motions. And then you look around, and all the guys are doing the same thing. These guys have to get up and come every morning too. You feed off everybody else. There's always certain guys on your team that you look at and think, man he just does it day in, day out. He might not be as good a player as you, but God, when it comes to practice, he's out there flying. You try to feed off him and pick it up.*

## **Distraction Control**

The NHL players reported facing a variety of distractions throughout a NHL season. These distractions occurred both on and off the ice. It was evident from the interviews that the types of the distractions faced by NHL players were similar to those faced by other elite athletes. However, the high-profile nature of professional hockey meant that the off-ice distractions could be rather severe.

*Nowadays the hardest part of being an athlete is what goes on off the ice, especially in Canada. ...You can't go out because everybody knows who you are, some players can't deal with that. ...If you slough off your work on the ice then the outside things; criticism, fans booing you, your kids having a hard time at school, can really start to grate on you. If you work hard on the ice then usually it's no problem.*

When elite hockey players experienced peak performances or were “in the zone”, nothing could distract them or take them out of their game. A seasoned professional explained the relationship between a peak performance and freedom from distractions as follows:

[During a great game] ...my concentration is almost like a state of flow, I'm not worrying about anything because it's just going too well. ...It's just unbelievable how into the game I am. ...Can't distract me on a night like that. [The] nights I play great there can be a guy hooking me and I won't even know it. Where on a bad night, a guy could hardly breeze by me and give me a tiny slash and it will drive me nuts.

Elite hockey players had developed a number of strategies to deal with distractions and re-enter the zone of quality performance. Some of the off-ice distractions re-

quired sheer mental toughness to work through while some on-ice distractions were dealt with by carrying a healthy perspective about mistakes. If a player had developed the ability to turn mistakes into opportunities then he freed himself to perform well more consistently.

*Mental toughness is probably the biggest thing [needed for success] in hockey. Hockey is a game where management or coaches can jerk you around quite a bit. You just may not be in the right place at the right time or someone doesn't like you. There is some favoritism, you just have to be tough enough that you play so well that the cream will rise to the top. You just have to keep going no matter what. If you're not getting the breaks, you have to keep fighting. If you give up then you're finished.*

*...on my first shift if I go and put a pass right on the opponents stick, and they go in and score, that doesn't necessarily mean I'm going to have a bad game. I say, 'Okay I had a bad shift', because if I say 'Geez, I'm going to have a bad game tonight', then the rest of my game will be shot. After a bad shift I just say 'screw it'. I just like to give my stick a little tap, see myself making the right play, take a deep breath and then forget about it, it's gone, I don't think about it anymore.*

Other players explained they were able to re-label or turn distractions into advantages for themselves.

*I remember the third series started in Chicago, and starting in that rink can be very intimidating but I always like playing there because I always use it as the opposite, as an advantage. For them to pump up their team, that pumps me up just*

*as much because I like that rink, the loudness, the craziness.*

Professional hockey players sometimes dealt with game-day pressures and distractions to their pre-game routine by joking and staying loose. The ability to remain flexible in the face of distractions was viewed as an important mental skill.

*If you lose an edge in warm-up and have to get your skates sharpened you can't let that wreck your game. I don't like taking my skates off but it doesn't bother me, I'll take it off and sharpen it. If you run out of this kind of tape just give me the next kind, I don't care. That's where being laid back will come in and help.*

*I take my mind off the game by joking. I don't even think of the game, I'll talk about a movie or something else. ...I start focusing in on the game when it's time to put on the equipment and when the guys are around and everyone starts to chatter.*

### **Constructive Evaluation**

All of the players post-game routines involved some form of reflection or evaluation on their performance, even though it was not always a thorough game-by-game evaluation. In the evaluation process the players did not seem overly concerned about a single performance and tended to look for trends over a number of games. This observation is consistent with the Botterill's (1990) applied work with the NHL players where "players were asked to periodically reassess their progress on key skills/responses and complete a segment goal setting form every five games" (p. 363).

The most critical aspect of the evaluation process is one's willingness to act upon the lessons drawn from performances.

Once these NHL players had targeted areas for improvement most would work on those skills during practice or spend extra time on the ice fine tuning that part of his game. Overall the NHL players' constructive evaluation procedures were well refined.

*[After a game] I'll take mental notes of what went well and what didn't. But I try not to over-evaluate the game because the season is too long, it's too long to really worry about one game. ...Any good plays I try and use it for positive energy to get better, and for confidence.*

*I evaluate myself over a period of time to see how things are going. I try not to worry about any individual game. If over ten games I do lousy on face-offs, or if I miss three or four breakaways in a row, I'll say, I better spend a little time and work on them. I like to do that a lot. Just fine-tune some things and that's what I do at a lot of the practices. I'll concentrate on these things after practice, for five or ten minutes, shoot some pucks. If I missed a few breakaways, I'll go after them in practice or work on them for ten or fifteen minutes after practice.*

Professional hockey players used the constructive evaluation process to draw out positive aspects of their performances and used that information to improve their confidence and belief. They were able to draw inspiration and confidence from their reflections.

*I try to look at my game as a whole. You may have one or two mediocre shifts, you just try to forget about those ones, you just try and build on what you did well out there. But I always try and evaluate how my game went. The other night I didn't play in the last five minutes of the third and I didn't play in the overtime. I can't really do much about that, it was out of my hands. But I*

*thought up until then I was jumping out there and basically was in the game. So I try to stay positive and feel good about myself and build on that.*

The professional sport setting allowed the opportunity for extensive use of videotape in the constructive evaluation process. One player watched game tapes late in the off-season as a means for preparing for training camp. Another player personally videotaped televised games in order to evaluate his performances, while another checked videotapes between periods of a game.

*I try to tape the game, that really helps. I can remember what my decision was and then watch it from a different angle and examine my decisions. I either watch the game on video... or think in my mind something that I did wrong or could have done better. If I missed a chance to score, I'll dump a bucket of pucks and just practice shooting, just a few different agile moves. Or if someone gets around me in a one-on-one then I'll really bear down in the one-on-ones or two-on-ones in practice and try to get my angles back. I focus on something that I should have done differently or better. I usually pick one or two things, you can't be going out doing a hundred things in practice.*

*If there is a goal scored against me... I'll go into the coach's office between periods and watch the tape and check on my positioning and make a correction for the next time.*

### **Fun and Enjoyment**

Fun and enjoyment was found to play a critical role in a professional hockey player's career both at the developmental and elite level. All players shared experiences related to the importance fun in the game of hockey, even though the "NHL

"Player Interview Guide" did not include the words fun or enjoyment.

It was clear from the interviews that all subjects derived a great deal of fun and enjoyment from the game of hockey. The meaning units were clustered together into four categories (see Figure 2 ): a positive youth hockey experience, enjoyment of professional hockey, a fun focus, and the ability to keep the fun in the game.

All of the players reported having a positive youth hockey experience: they played with friends or brothers and typically their entire family was involved in sports. They reported loving hockey and deriving "a lot of fun" from the game as a youth. A number of the players explained they could not get enough of the game and enjoyed the freedom that hockey gave them.

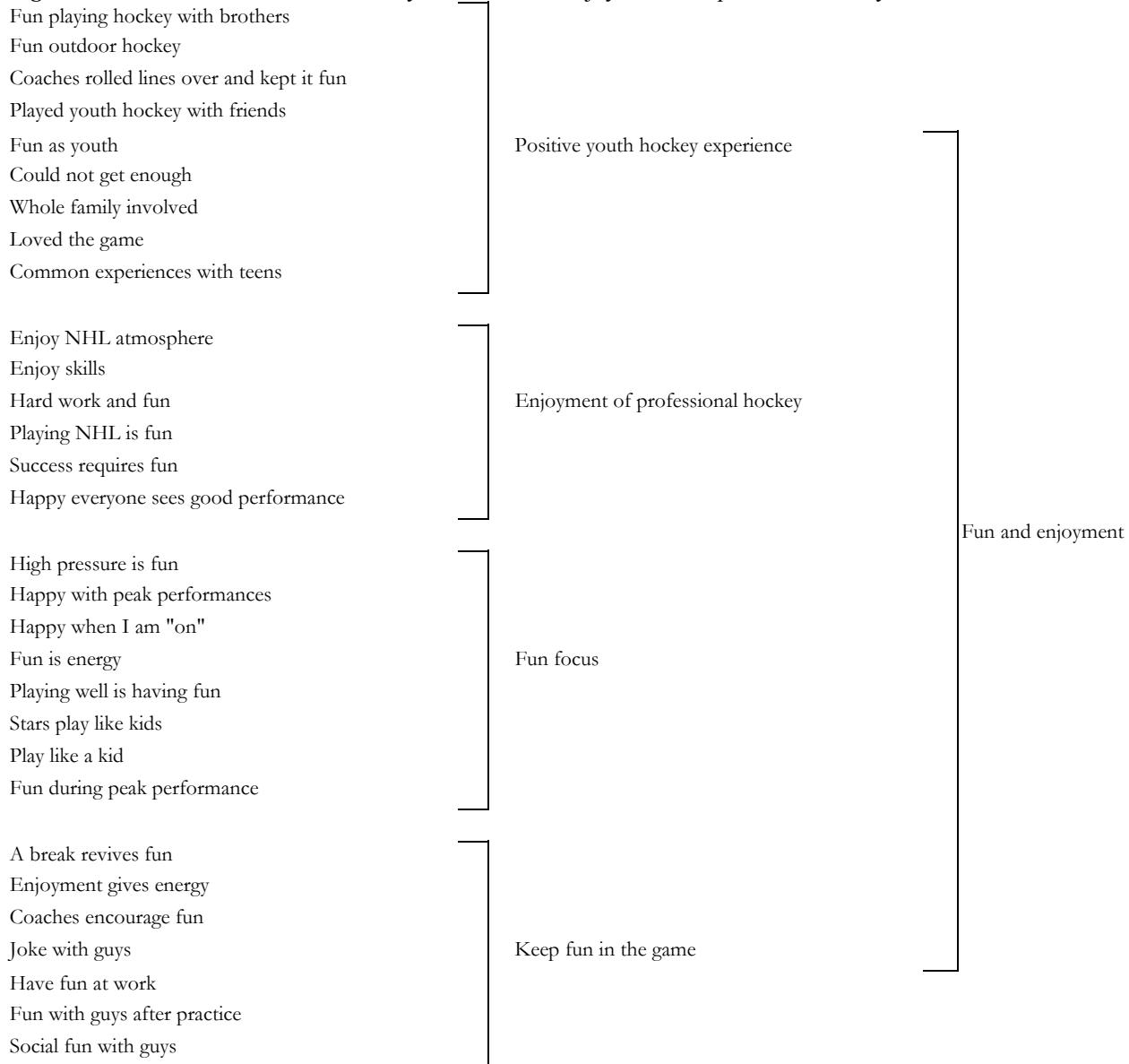
These elite players still enjoyed the NHL game. Despite the demands of playing professional sport, they often stated there was nothing else they would rather be doing. Many thrived on the excitement of the professional sport setting, enjoyed high pressure games and all still enjoyed the simple skills of the game. They explained that while they worked hard, and in some cases earned very high salaries, they still enjoyed playing the game and had a "lot of fun" with it. They felt that when they had fun on the ice and kept a fun focus at the rink they played and practiced better. Best performances were linked to having fun.

One veteran player explained that, "the management often treats you like cattle in this league." The best players seemed to embrace the game itself as an escape from those pressures. Whenever coaches, management or the press tried to take the fun out of the game, the players made an effort to

put it back in. They would joke around in practice, play fun games after practice usu-

ally in the absence of the coach, or socialize

**Figure 2.** Inductive Content Analysis of Fun and Enjoyment Component in Hockey



with teammates away from the rink in order to keep the fun in their game and/or in their lives. This fun focus seems to be an important part of regeneration and keeping some joyfulness in their pursuit.

Quotes related to the importance of fun are presented:

*For me hockey has always been fun and something that I like doing. I just go to the rink and I play the game of hockey just like I did when I was a kid.... The highest pressure I've played in is game 7 of the Stanley Cup finals. ...I lived that moment and we lost 3-1. I guess in a way you could say that was a lot of pressure but thinking back, I don't remember the pressure. It was*

*just a great game. Play-off hockey is fun. It's supposed to be the most pressure-packed and all that, but it's fun. The fun games are highly pressure-packed.*

I get adrenaline from hockey when I'm having fun, like I did playing shinny on the outdoor rink. ...Enjoying the game gives me energy. It's less like work and more like play, and anytime I get that, I get the adrenaline going. All the guys who dominate in hockey, Gretzky, Lemieux, Yzerman, they all have been able to play like they played when they were kids. ...they still play the game, they play shinny hockey. ...That's when you dominate because then you're crafty. If you watch Gretzky, he's just having fun out there, he's doing stuff that no one else would have the confidence to do, ...He works hard, but he just plays it like an outdoor rink.

...you have to be able to enjoy the atmosphere. The pressure isn't really a big deal as far as I'm concerned. You have to enjoy the fact that you have to go out 80 games and play well, perform and produce. I enjoy that aspect of it. ...But I enjoy playing the game. A lot of the outside things can irritate me, but for the most part the game itself is a lot of fun.

When you go to the rink you've got to work hard and do your best and then you're going to have fun, you're going to be joking around with your teammates. As a team this year we were abysmal in the standings, but we have a great group of guys. We worked hard every day in practice, we worked hard every game, ...For the most part we had fun. I think if you ask anybody on the team, it was a fun year given how bad we were.

When asked what advice they would give an aspiring minor hockey player from their hometown, two players responded

with: I'd tell him to enjoy the game. ...I think you've got to work on your skills and enjoy the game. Play the game because you like it. And if things fall into place then you can move on and be successful.

...the biggest thing I learned this year is that even though hockey is a serious game at my level, you've still got to have a lot of fun, and keep the fun in the game as long as you can. As soon as you're not having fun, you're not going to play very long after that, it's just too hard on your mind. Fun is the biggest word I've learned this year, I've learned it all over again. It's only a three-letter word but it means a lot.

### Reflections

This study has shown that elite NHL hockey players share a number of key mental skills: commitment, belief, full focus, positive images, mental readiness, distraction control, constructive evaluation, as well as an ability to embrace fun and enjoyment.

Commitment was the most highly rated component of excellence. All of the players interviewed demonstrated a high degree of commitment to excellence in hockey. Commitment appeared to be enhanced when they had clearly established goals, suggesting a strong link between commitment and relevant goal setting. This study supports the proposition that a huge part of excellence is developing, maintaining and nurturing commitment. Fun and enjoyment were an important medium for enhancing players' commitment and longevity in professional hockey.

Figure 3 provides a conceptual model of the mental skills required for success in the NHL. Commitment to relevant goals and belief in one's potential are considered as core elements of excellence due to the consistently high ratings they received

by NHL players on the surveys and during their interviews. The NHL players also confirmed the importance of full focus, positive images, mental readiness, distraction control and constructive evaluation. New light was shed on the importance of “fun and enjoyment” for excelling in professional hockey.

We are only beginning to understand some of the intricacies of excellence within

team settings. Collectively we still have a tremendous amount to learn from the wisdom and experiences of performers who excel in their sport and life, especially in interactive and team pursuits.

**Figure 3.** Mental Skills of NHL Players



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## Finding Balance Within Excellence

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### Abstract

Essential physical and mental requirements have been recognized as necessary for excellence in sport. However, minimal research has examined the lives of high performance athletes as a whole and their perception of balance or imbalance in their life. The present study, therefore, set out to explore elite athletes' perceptions of balance in their lives. In-depth, semi-structured interviews and modified self-report diaries (Krampe, 1994) were conducted with 10 elite athletes (5 currently competing and 5 retired athletes). Inductive analysis of interview transcripts revealed that half of these athletes (2 current and 3 retired) defined balance primarily as having a vision or goal and striving towards it, while the other half (3 current and 2 retired) defined balance as respecting different parts of their lives. Balance in these athletes' lives was perceived to fluctuate in cycles in accordance with their needs and wants for particular times in their lives. Athletes identified six prerequisites for attaining balance: (1) make a conscious decision to have balance; (2) have strong self discipline; (3) enjoy what you are doing; (4) have a supportive network; (5) have leisure time; and (6) be in the moment.

### Introduction

Much of the psychologically based research with high performance athletes has focused on the mental factors associated with excellence (Botterill, Patrick & Sawatzky, 1996; Kreiner-Phillips & Orlick, 1993; Orlick, 1996; Orlick & Partington, 1988). Researchers have also examined time demands and practice requirements for expert performance in the domains of music, arts, sports and sciences (Bloom, 1985; Ericsson, Krampe, & Tesch-Römer, 1993). However, few studies have adopted a holistic approach when examining the lives of elite athletes and their perceptions of balance or imbalance in their lives.

Orlick (1998) has advocated the importance of maintaining a sense of balance and perspective in sport and life when pursuing ongoing excellence. Through his work with thousands of athletes, he has come to recognize the role that balance can play in high-level performers' careers. Orlick (1998) has defined balance as "finding beauty, passion and meaning in the different loves of your life, and living those loves - every day. Balance is respecting your needs for achievement and relaxation, work and play, giving and receiving, intimacy and personal space" (p.xiii).

To our knowledge, there is no empirical research that has investigated elite athletes' perceptions of balance in their lives. Do elite athletes feel that they have or do not have balance in their lives? How do they define balance? How do they view the quality of their lives? Given the scarcity of research on elite performers perspectives' on balance in life, much can be gained by exploring this uncharted domain. In the present research ten elite athletes were engaged in in-depth interviews to explore their perceptions of balance. More specifically, the following areas were examined: (a) the athletes' definitions of balance; (b) their perceptions of balance in their lives; (c) their views on prerequisites for achieving and maintaining balance in their lives; (d) their perceptions of excellence; (e) their views on quality of life; and (f) recommendations for other athletes striving for balance during their competitive years.

The business literature has addressed the issue of balance primarily with respect to time management. Since Drucker (1966) first popularized the concept of time management, supporting studies have shown that employees who are good at managing their time are generally more successful than those who are poor at doing so (Evans & Bartolome, 1981; Kotter, 1982; MacKenzie, 1990). According to Lakein's (1991) description of time management, individuals must first determine their needs, then rank them in terms of importance, while wasting no time on unimportant tasks. Specific actions involved setting primary work-related goals and prioritizing the tasks necessary to accomplish them (Lee & Kanungo, 1984; Macan, 1994). Time management efficiency was directed at better on-site work achievement and not necessarily individuals' lives as a whole.

Research examining demanding occupations has indicated that many people involved in this type of work had an overload of time demands placed upon them. Many upper management positions require individuals to work more than 60 hours over a six day work week and irregular hours, with endless requests placed on their time (Evans & Bartolome, 1981; Gullotta & Donohue, 1981, Kotter, 1982). As additional demands placed on their time increases, the possibility of the individual experiencing burnout becomes even greater (Boswell O'Brien, 1981; Pearlin & Schooler, 1978).

The harmful effects from overload on the individual also appeared to transfer into other aspects of their life. Aldous (1969) found that occupations with irregular hours, as well as those taking a spouse away from home for days or weeks at a time placed a strain on the family unit. The majority of the individuals' time was spent on the business aspect of their lives; leaving little time for non-job related activities. At many upper management levels, executives contributed more in terms of finances than time involvement to their family (Gullotta & Donohue, 1981).

Although the business literature presents a picture of possible consequences of occupations with excessive time demands, the questions of interest to this study remain unaddressed. How did these overworked individuals perceive the balance in their life? How did they try to achieve balance in their life, or did they disregard balance all together? More important for the current study is the question of how elite athletes respond to these questions.

## Method

### Participants

The participants in this study included 10 elite athletes, more specifically, 5

currently competing and 5 retired athletes. The sample consisted of 4 females and 6 males between 23 to 38 years of age at the time of the interview. Collectively, the athletes had won 11 Olympic medals (6 gold, 4 silver and 1 bronze) and 14 world championships. All of the athletes were medallists at the Olympic or World Championship level with the exception of two individuals.

The currently competing athletes represented the sports of ice hockey, track and field, cycling, canoeing, and rowing. The retired athletes represented the sports of swimming, canoeing, bobsled, sailing/rowing, and biathlon. Furthermore, the athletes were citizens of the following three countries: Canada, the United States and Switzerland.

Individual interviews were arranged through personal contacts. The investigator informed each participant of the nature and purpose of the research, emphasizing that all information would be kept confidential and anonymous. After obtaining the participants' consent to take part in the interview, arrangements were made to send them diary forms. Interviews were scheduled at the participants' convenience.

## Data Collection

### Diary Forms

In order to increase our understanding of the amount of time the participants invested in their sport, three diary forms were sent to and completed by each athlete prior to conducting the interviews. The diary forms asked participants to describe a typical day (Diary form 1) and a typical year (Diary form 2) during their most successful competitive years. The third diary form asked participants to record estimates of the amount of training they did over the span of their sporting career. Diary form 1 and diary form 3 were adapted from Krampe's (1994)

work with expert pianists and diary form 2 was adapted from a study conducted with Canadian National team coaches (Zitzelberger & Orlick, 1998). This form asked participants to record their sport-related activities during their most competitive year.

### Interviews

The interview guide was developed based on input from elite athletes in a pilot study and the second author who has extensive experience in interviewing methodology. Each participant was asked to respond to the set of questions from the interview guide which included an inquiry into: (a) the athletes' definition of balance; (b) their perceptions of balance in their lives; (c) prerequisites for achieving and maintaining balance in their lives; (d) their perceptions of excellence; (e) their views on quality of life; and (e) recommendations for other athletes striving for balance during their competitive years.

### Data Analysis

All interviews were audio-taped and transcribed verbatim. Every participant was sent a copy of their interview transcript in order to confirm that the information accurately reflected their perceptions. In each case, they confirmed that what was recorded and transcribed was an accurate account of their personal views and experiences. This process ensured the credibility of the data prior to analysis.

Once the transcripts were returned they were analyzed inductively. The objective of the analysis was to allow concepts and themes to emerge from the participants' answers in order to build an overall framework of their perceptions of balance. The inductive analysis was initiated by organizing the participants' responses into relevant segments of text or meaning units with the connection to the whole being maintained

(Tesch, 1990). More specifically, a meaning unit is a “segment of text that is comprehensible by itself and contains one idea, episode or piece of information” (Tesch, 1990, p.116). Common meaning units were compiled together into flexible categories that were inductively organized into common themes. This process, adapted from Glaser and Strauss’ (1967), involved comparing and contrasting the data until no more general themes arose from the data. This provided a framework to present the elite athletes’ perceptions of balance.

A member check was conducted to further validate interpretations of the participants’ perceptions. Member checking is a process by which the researcher’s interpretations and conclusions are tested with the participants from whom the data was originally collected. This involved faxing each participant a final summary interpretation of their interview. Similar to the check done with the interview transcript, they confirmed that what they received provided an accurate interpretation of their personal views and experiences. Lincoln and Guba (1985) refer to member checking as the most important technique for establishing credibility of the data.

## Results and Discussion

The interviews were analyzed using inductive content analysis methods. Specific themes are presented and discussed in conjunction with direct quotes from the interviews in order to present the participants’ perspectives in their own words. The main areas that are discussed include: (a) definition of balance; (b) perceptions of personal balance at an elite level; (c) prerequisites for achieving and maintaining balance at an elite level; (d) perceptions of excellence; (e) quality of life; (f) factors affecting balance; and (g) recommendations for achieving balance during competitive years.

### Definitions of Balance

In the present research, an attempt was made to avoid imposing a pre-established definition of balance onto the participants. It was felt that this open-ended approach would help to draw out their personal definitions and perspectives on balance in their lives. Through the interviews, it became very apparent that the issue of balance was of great concern to every athlete. Every athlete had interesting insights regarding their own balance and their definition of balance. The following quotes illustrate specific definitions of balance.

### Current Athletes’ Definitions of Balance

*Balance is being content with yourself and not being reliant on one aspect of your life. If your sport goes down and that is all you have then you are not balanced and at the same time if a relationship is all you have and it goes down hill and you are a waste product afterwards then you are not balanced. You have to have personal goals, friendships, relationships, career objectives and other interests to have balance. Not being too dependent on one thing. (C2)*

*Balance is feeling that all areas in your life are in order. That you are not worrying about other things because you are so focused on something else. I think balance is like a circle where you have these periods where you are focused on one thing and you can't do anything else but then you have these periods where you are “normal” and can do other things. (C5)*

*I picture balance as a huge trampoline with a puddle of water in the middle of it. Around the trampolines' edge are all the areas of my life. Balance is finding an inner harmony where all areas of my life are all in sync or where the water is close to the middle where I can handle it. Inner harmony means lis-*

*tening to yourself, not everyone else and focusing on one thing at a time. (C1)*

### **Retired Athletes' Definitions of Balance**

*Balance is having a meaningful goal or vision where to go. You are able to suffer a bit for that mission because you know you want to pursue this mission. What I am seeking brings out meaning. That brings balance automatically because you are pursuing something that has a lot of meaning and you can really push yourself because you want to and you know how to. (R3)*

*Balance is being able to set goals, make a plan and go through with it. Balance means being able to use logic, heart and having fun with it at the same time in order to make the right decisions. (R1)*

*Balance in life means not feeling like you are being pulled in any one direction. It means contentment and lack of stress. It means having to think about what you are doing. I think a lot of people that don't have balance just live their lives not thinking about it. I know I always thought about it. I saw it like a triangle of sport, school and social life where each side was important but I had to keep them separate enough to not have them override too much. (R5)*

Two main themes emerged from these ten athletes' definitions of balance. For half of these athletes (2 current athletes and 3 retired athletes), balance was defined primarily as having a vision or goal and going after it because this gave meaning to their life. The other half (3 current athletes and 2 retired athletes), defined balance primarily as respecting the different parts of their life.

The athletes who defined balance primarily as pursuing a meaningful vision or

goal emphasized that it was a "planned focus." These athletes were focused on a certain path in their life and felt that they were balanced when they made the best decisions with those goals in mind. This included respecting their body's need for proper recovery in order to push themselves to the limit.

The athletes who defined balance primarily as respecting the different parts of their lives accentuated the importance of not being too reliant on one aspect of their life. More specifically, they emphasized that balance centered on the need to have multiple areas of their life in order. These athletes felt that to be balanced they should fully respect the different aspects of their lives outside of their sport. Moreover, these athletes believed that when their life was more "well-rounded," they had better results in their respective sports. This definition also coincides with Orlick's (1998) vision of balance as "finding beauty, passion and meaning in the different loves of your life, and living those loves" (p.xiii).

One theme that every athlete alluded to with respect to balance in their life was the importance of knowing and respecting themselves. They felt that if they knew themselves and respected what they knew, then they could achieve a higher level of balance. Specifically, this meant paying attention to their personal needs, trusting their beliefs and instincts, and not blindly accepting what others were advising them to do. As one athlete expressed it, "You have to find out what works best for you. You have to choose what information will work for you. Not someone else" (R3). Another athlete expressed it as follows:

*I realized that I could be my best when I didn't force myself to do something I*

*really didn't want to do. I have figured out what I enjoy, what my constraints are and how to deal with the things I can't change. I never force myself to do things, even if others say it worked for them. I know what works best for me. (C3)*

One common requirement for all these elite athletes was the time commitment necessary to achieve their elite status in their respective sports. Every athlete's diary form revealed an average of 4 to 8 hours a day, 6 times a week spent engaged in their sport during their competitive season. One athlete commented, "Balance is having the training component but also quality rest and relaxation with your friends, family and yourself without feeling stressed." (C4). This currently competing athlete was a world champion and was successfully pursuing a graduate degree in the "off-season". These athletes clearly accepted the time required to excel in their sport and knew that it clearly exceeded the amount of time spent in other important areas of their lives, such as family and friends, or leisure time.

## **Perceptions of Personal Balance Current Athletes' Perceptions**

During the interview each athlete was asked the following question; "Can you step outside of yourself for a moment and tell me, if other people were looking at your life, how do you think they would see it in terms of balance?" Every currently competing athlete stated that if other people were looking at their lives with respect to balance, they would probably view it as unbalanced.

*I think others would be appalled at the amount of training we do. They would think I was unbalanced, but in a good way. Unbalanced has such negative connotations to it, I like to say more committed or focused. People say to me, "Is there some*

*magic pill I can take to make me get up and exercise early in the morning?" I just do it because it is fun and I like it. Exercise is good so why not take it to the extreme! How many researchers and professionals who are doing really well at something put most of their time into it? Is that deviant? You have to be almost obsessed with it. To me, I see that I have this opportunity to be the best in the world, why wouldn't I take that opportunity? It is almost like this carrot dangling there in front of me. I am in the system that gives me the tools to do it. I have this coach and amazing teammates and there is nothing else I could imagine doing. I feel pretty lucky. (C5)*

A general theme that emerged from the interviews was the changing context of balance. "You have periods when you are focused on one thing and other periods when you can focus on other things." (C5). Part of balance is being flexible and adapting appropriately for the training or competitive period you are going through. Regardless of whether an athlete had defined balance as a "planned focus" or "respecting the different areas of their life," the level of balance in their life seemed to shift in accordance with their priorities at that time.

*I think my life is seasonally unbalanced. During the main competitive season, it is unbalanced. It puts a strain on my relationship. In the winter, I think it is balanced. I know I have to make a big effort to try to keep my relationship and not be totally dependent on my racing. Other people looking at my life would not think my life was balanced because my sport is a complete passion for me. (C2)*

This "shift" in balance in their lives was viewed as doing the appropriate thing at the right time, which may include investing more time in their sport for a certain period

of time at the expense of other important aspects of their lives. There also appeared to be an inherent view that to achieve and maintain balance you must be committed to work towards that goal. Athletes must be ready to work to achieve their desired level of balance and to take advantage of the “shifts” associated with this process.

### **Retired Athletes’ Perceptions**

During their most competitive sporting years, three retired elite athletes felt that their life was balanced while two felt that it wasn’t. Here is an illustration of imbalance:

*I was totally out of balance. I was excessive and very intense. Trained too hard and over-trained. I am an incredibly driven person, I like to work hard, and it gives me a good feeling. At that point I thought I was balanced if I ate well and had a good night’s sleep and was well prepared for practice. (R4)*

The following two quotes represent the retired athletes who felt their life was balanced during their competitive years.

*I think my senior year in college I had the most personal balance because of the way my social life, sport and school were going. It was the year I did the best in school for some reason and I swam really well. Looking back to that year, all three of the things that I think are important meshed well together but I was able to keep them separate enough to have them not override too much. (R5)*

*The focus is just so different now. I had things in balance for what I wanted to achieve then, but I had one thing- my sport. My life was very simple and straightforward then. I don’t think a lot of teenagers and people in their early twenties are really*

*committed and would put that much energy into one aspect of their life or achieving at that level. Now I have so many more demands and responsibilities that it is much harder to balance. I think that balance goes full cycle. When I was competing it was simple. Now things are very complicated and then they will get simple again, that’s the way life goes and that’s the way life is supposed to go. As you get older, life gets simple again because you have fewer responsibilities and fewer things to be involved in. You are more centered on what you want to do and that’s the way my life used to be when I was competing. (R2)*

### **Prerequisites to Achieve Balance**

The participants were asked if there were any prerequisites they had to respect in order to experience balance in their lives. All 10 participants identified the following six main prerequisites: (1) make a conscious decision to have balance; (2) have strong self-discipline; (3) enjoy what you are doing; (4) have a supportive network; (5) have leisure time; and (6) be in the moment.

### **Conscious Decision**

Every athlete felt that in order to experience the balance they wanted in their life, they had to make a conscious decision to pursue that objective. When they were discussing this prerequisite for balance, three of the five athletes who had previously defined balance as “respecting the different areas of their life,” made reference to their teammates. They talked about their teammates who did not have balance because their sport was their only focus: “Sport was their only priority.”

Five athletes mentioned coaches and the value of finding more balance in their pursuit.

*Our head coach has always told us that if you are only training then it is not good for your mental health. It won't improve your paddling and it won't improve you as a person, that is a real key thing. In the past, I have always been over consumed with training because it is such a big part of my life, I'd always be thinking about it and I'd weigh myself down. Now I make sure I have enough time off when I need it and go relax and do things like normal people do. It is what I want too, not just him telling us. I find I need that, to get away from it and take a break. (C4)*

*We were in this city the other week and I talked to some athletes who were on another National team. They have to be at their training center now so they can't go to school because they have to train full time for the World Championships next year. Their training center is this compound 40 miles out of town and they aren't allowed to have guests stay over. They (guests) have to be out by 10 p.m. even if they are married. By the time they get to the Olympics they are burnt out, they don't want to see another one. They ended up being 4th at the Olympics and they were World Champions the year before, so they were the favourite to win but they were self-destructive. I asked them why they went to that awful camp and they said if the coach invites you and you don't go, then it is very hard to make the team again. Whereas our coach is very good at finding people across the country who are strong and do well and he sends out letters and makes himself available to people. If they want to tryout for the team they can contact him. He talks with everyone to see what is best for them. This non-militant style helped us win the Olympic medal I am sure." (C5)*

### **Self-discipline**

Although advice from others may have been well received, it was evident that these athletes were very self-directed individuals who liked to direct their own path. Every athlete said that self-discipline was a key factor in allowing them to achieve their goals.

*Self-discipline is important, spending your time wisely. As an athlete, I think people probably don't understand your schedule. It looks as though you have all day to do 2 hours of training. When you really have two hours of maintenance, two hours of sponsorship, you have to have proper rest time, therapy and time for sports massage. Time management is really important. You do have a lot more flexibility in your schedule but you have to be more disciplined because you have all day. It is super easy to procrastinate and leave everything until the end of the day and then your productivity goes way down. It's discipline to do things when they are supposed to be done and spend an appropriate amount of time on them instead of just starting one thing and then starting something else and not really finishing any of them when they should get done. (C2)*

### **Enjoyment**

Competing at an elite level required much effort and discipline, yet all athletes loved overcoming the challenges of extending themselves. Every athlete emphasized that they had to enjoy what they were doing in order to give and receive as much as they did in their sport. It was obvious that being an elite athlete was a 'complete passion' generating a tremendous amount of satisfaction.

*You can't get that much sense of pride or enjoyment from the potential jobs that I was looking at from cycling. There was absolutely no way I could get that sort of reward*

*from another job. Basically I was going to switch jobs for money and that is not a priority in my life. So, it didn't make any sense. My sport is a complete passion for me. (C2)*

*I always thought I would grow up with my friends, play hockey until it was over, then go to university and get a real job. I just took everything one day at a time. This amazing job just kind of fell into my lap. I just loved the sport. (C3)*

Every athlete in this study strongly emphasized the enjoyment they experienced in their sport. This might be seen as a contradiction to Ericsson, Krampe and Tesch-Römer's (1993) theory regarding deliberate practice. These authors stated that deliberate practice is effortful and not inherently motivating or enjoyable. That was not the message conveyed from these ten athletes. They all spoke passionately about the enjoyment they attained from their involvement in sport. In response to a question about how they dealt with challenges in their life, one athlete said, "You have to focus on what is good and ignore the other things. You have to shift your attention towards what you like."

### **Supportive Network**

All athletes discussed the importance of having an understanding and supportive network of people around them as an essential component of personal balance. It is interesting to note that four of the ten athletes had a partner who was also competing at an elite level. These four athletes said it helped having someone close to them who was living the same experiences. These "coupled" athletes emphasized the necessity of working at their relationships and made a point of focusing their discussions on issues outside of their sport when they were together.

The following quotes reflect the athletes' comments about seeking the support of significant others whom they could trust completely:

*My family was always really supportive, helpful and generous. I couldn't have asked for more from them. I never perceived any pressure on me to do something different. My boyfriend was also totally supportive and understanding because he too was pursuing a sporting career. It helped having people around you who really knew what you were going through. (R2)*

*You need a network of trusted people around you. A network that really protects you, because if you are facing difficult situations then you can be harmed by so many of them (media and other competitors). I had a network of coaches and my wife surrounding me. (R3)*

Two athletes chose not to pursue a personal relationship during their most competitive years. They felt content with their choices and stated that when they were able to devote the necessary amount of time to a serious relationship, they would, as reflected in the following quote:

*I have always had good relationships around me. The one thing I did consciously decide to do in the last four years of my career was not to seek a relationship. I dated a lot but I didn't want the time commitments and emotional commitment of a relationship to interfere with anything. That wasn't a big deal for me. (R5)*

Eight of the ten athletes made reference to their relationships when they discussed the balance in their lives. These athletes felt that having a relationship during their competitive years improved their bal-

ance even though their relationships required a time commitment.

One athlete shared a story surrounding the birth of his first child. The impact of this event on his feelings and performance was expressed in the following quote:

*My daughter was born three weeks early on the first week of the World Championships. She was born 3 hours from the World Championships location. I knew that it would be possible to go there by car. I left home on the Sunday evening to the training camp and Monday morning my wife called to say the baby was coming. I talked to the doctor and he said if I wanted to be with her for the birth I should really hurry up. I took a car and drove back. I told the coach I would be back for training tomorrow or the day after. I made it in time and was there with my wife when my daughter came to earth and that was an experience that you should not miss as a man. Your wife can't miss it but as a couple you should do that together. I think the birth of the child was an experience that made me forget that all the competitions were there, it was a much more important thing. I stayed there with the baby in our arms until late in the night and then drove back. I had slept for 3 hours and then began the training runs. A lot of things were happening in myself, really unexplainable. I had the best race. I had a focus on my baby the whole week and then it slowly came back to sport but was not too strong of a focus on it, but I had an incredible competition. The focus was just there again. It was so easy, the feeling was so clear, the perception was there and I knew if I could stay there for the whole competition, then it would be hard for others to have the same results. And we did just that and won the World Championships. It was not the result but the feeling of the race that all the things came together. It was*

*like an incredible mission. I believe the birth set things in perspective. I knew that when it was over, when I went home, there was a little baby and my wife waiting for me. They will be there whether I am successful or if I am not. (R3)*

This athlete later stated that the birth of their child was one of the most joyful experiences he had experienced in his life. He felt that it reinforced his belief in the importance of not only having a supportive network, but also nurturing that connection with his family.

### Leisure

During the interview, the athletes were asked if they did anything outside of their sport for a lift. Every athlete stressed the importance of joyful time away from their sport. Although they invested countless hours in training and competing, they also engaged in enjoyable activities outside of their sport. One athlete responded:

*I make sure I still go out with my friends or boyfriend and just relax. They are really good at not talking about paddling when we are together. They need a break too because they are so into school or work. My parents are really good too because they don't always ask how my workouts are going which is good because I like to just leave it at the club. (C4)*

It is interesting to note that one activity every athlete engaged in during their competitive years was reading. As one athlete put it, "reading is portable and you can do it for a long time or two minutes. You can step into another world with it" (R4). They talked of always wanting to learn new things from the books they read and were eager to draw out lessons.

*If you want to compete well, you are forced to do something new because other*

*people will find out too. If you want to stay there at the top you always have to be ahead, so you have learn and try out new things. You are a researcher yourself; you are a life researcher. (R3)*

When discussing leisure, six athletes mentioned their experiences with nature, which brought a sense of balance to their lives. One athlete said; “I like to walk through the woods, just alone, no other things except nature. That is where you experience life. I really like just taking it in” (R1). Nature was a source of relaxation, energy and inspiration. All ten of the athletes said they enjoyed just relaxing on a beach in their time off.

### **Being in the Moment**

Every athlete emphasized the importance of living their life “in the moment”. They talked about the necessity of being totally involved in what they are doing, which meant being there both physically and mentally whether they were engaged in their sport or something outside of their sport. They all mentioned working at keeping their sport life separate from the rest of their life:

*I have this huge filing cabinet in my head in which, if I am at practice, I file issues from my school or social life away until later. The same goes for away from my sport. I don't carry issues over into the other parts of my life. I have to be totally involved in what I am doing. I try to be “there” with the highest possible intensity. (C1)*

### **Perceptions of Excellence**

The athletes were asked if they felt it was possible to excel in their sport and in their life. All of them said they felt it was possible. Excellence in sport was referred to as a measurable concept that was achieved if they had attained their sport-specific goals, such as making a final at a World Champi-

onship, winning an Olympic medal or improving their personal best. Excellence in life was perceived to be a more nebulous concept without clearly measurable or visible criteria. The athletes generally spoke of excellence in life with reference to personal development and making a positive contribution in other people's lives. They expressed the possibility of attaining excellence in life and excellence in sport through commitment to the things that were important to them.

*I do think it is possible. You have to be aware of what it takes to get where you want to go. Our coach encourages us to do lots of things. He is quite proud of how educated his team is. My rowing partner is in medical school, and another is doing her MBA. I remember before our Olympic final, our coach told us that he really cared about us all as people and really enjoyed working with us. He said, “If you go out and have your own best race, I will be really proud of you.” The whole cloud of pressure lifted and everyone sat up and went “Ah, this is great, let's go race. We are so ready for this and we're going to do great.” I think rowers are older and everyone is really well educated. Again, we have different projects outside of rowing but when it comes down to it, you really have to focus on your race or on your thesis defence and it might be necessary to put the other interests aside temporarily. But that is okay. (C5)*

*I don't think my sport involvement was the most important thing in the world. It is not going to contribute to world peace or the cure for cancer. But if you are good person, a valuable contributor to your family or society then you are developing as a whole person.” (R2)*

## **Quality of Life**

When asked to share the time they had experienced the highest quality of life, the five athletes currently competing felt that they were experiencing it at the present time. They had a general sense of fulfilment and were able to focus on one meaningful thing in their life, their sport. The following quote, illustrates this view:

*When I am focused on just doing one thing, I feel very fulfilled. When you are at the World Championships and it is the week before you are going to compete, you are starting to taper, you feel very strong, excited and ready. You feel like everything you have done is worthwhile. You feel very powerful and it is pure quality. (C1)*

When asked whether their quality of life had changed over the years they all referred to transitions in their life when speaking of changes in their quality of life. For one athlete, an important change occurred when she moved to the highest competitive level:

*In 1995, my quality of life was down because I was down about myself. It was my first year senior. I was like a little fish in a big pond because all of a sudden you are with the best in the world and the speed of racing is a lot faster. It was a mental thing to get over. As a junior, I was used to being out front so I wasn't used to being stuck in the wash or to be behind. It always takes about 3 years for the transition to get into the senior ranks. Now I am where I want to be and feeling that sense of accomplishment really feels good. (C4)*

Three of the retired athletes felt that they had experienced the highest quality of life during their competitive years. The other two felt that it was an ongoing process. Similar to the currently competing athletes,

those retired from their sport reported shifts in their quality of life as they faced transitions. They felt that transitions became smoother by applying the lessons they had already learned through sport.

*Regardless of whether you're successful in sport or tend to be a high achiever...and some are only high achievers in sport...there are some people who don't carry the lessons over into their next life. (R2)*

## **Factors Affecting Balanced Excellence**

With the extensive amounts of training and stress that high performance athletes endure over their sporting career, preventing burnout through adequate recovery is very important. Eight of the athletes in this study addressed the issue of improving performance through more balance. Powerful lessons regarding burnout are expressed in the following quotations:

*After winning at the Olympics, I had no energy. I was near burnout and I knew when I went on, it was always stepping between burnout and recovery. I knew I could not go on like that. That is where balance comes in for me. High competitive life demands a lot of balance. You have to look for your balance after the competitions by stepping out for one or two days. Then you can step back and go on with that kind of focus. You need a lot of energy so you must have quality recovery. (R3)*

*This past year has been my best yet. I really think that my silver at Worlds was accomplished because I have learned how to be tuned into how I am feeling on the water. I took the time off when I was tired. I now know how to judge fatigue versus being a wimp. I have learned how to prevent over-training and burnout. That was hard for me to do in the past because I would train through everything making it worse. Now I*

*can really recover well but I have to pay attention to how my body feels. (C4)*

One of the athletes who experienced burnout during her most competitive years expressed her situation as follows:

I was obsessed. I would train to the point where I would taste blood in my mouth. I would be exhausted and keep training. It was bad. It got worse and worse. After that I said to myself that I would listen to my instincts and stop when my body told me to. (R4)

The way to prevent burnout was to listen to their body and take time for proper rest, regeneration and recovery. One NHL player used injury as an opportunity for rest:

*There aren't too many days in a season (in the NHL) when you feel just absolutely fantastic. It's a physical game. You take all the injuries in stride and you realize that with the rehab they do now, with the doctors they have at that level, with 99% of the injuries you can come back and play. The way I like to look at it is, when I get injured, I think of it as a rest. The season is so long, it takes so much out of your body, and it is so hard on you. I pretty much convince myself, "Okay it's a rest and take some time off." Some guys don't look at it like that but it's better than sitting in the stands or sitting in the corner and being pissed off all the time. (C3)*

Almost all of these athletes mentioned the value of getting adequate sleep and eating well when trying to consistently perform at a high level. Two other factors mentioned that made the balancing act more difficult included extensive travel and media demands.

## Recommendations for Others

One of the main purposes of this study was to gain a clearer understanding of the issue of balance in elite athletes' lives. The findings may be of value for developing athletes who are seeking to lead a more balanced pursuit during and after their athletic career. To assist in this objective, participants were asked if they had any recommendations for other athletes to help them reach the elite level and still maintain some sense of balance in their life. Their advice is reflected in the following interview excerpts:

- *If you love your sport, then do it! Go crazy with it but remember that you've got lots of other things to explore too, keep plugging away at education. It is almost like starting a new relationship that you are so engrossed in it you forget everything else. That is okay for a while but if you take it to the extreme, you could lose your job, friends, everything. Especially with sport, very bad things can happen if you train too much. Besides failing school, you can get injured and seriously hurt yourself. You have to know how to listen to your body so you know when to take a break. (C5)*
- *Don't look at friendships, relationships and family as a burden to your sport. You may not realize how important those things are until your sport falls apart, which it will do at some point. Sport is great when it is going well but it can also be extremely depressing when it comes down. That is when you realize that you need balance and other people in your life; sport isn't everything. (C2)*
- *Take summers off, stay away from the game (e.g. after a long hockey season). Otherwise, come September, you won't*

*even want to play. You have to remember to have fun. (C3)*

- *The results of your races aren't nearly as important as the way your sport makes you feel. Never let go of that feeling. And keep a balance with the rest of your life, sport, school and social. (R1)*
- *It's more difficult to have balance in your life than to not have balance, but it is more important. Make sure you stay connected with your family and friends and don't go off and stay in your own world. If you don't have those other supports and you build your career or life on a very narrow base of focus, then you might make it to the top, but if anything happens on the way it could crash. If you have that strong base of support, other parts of your life, so that you're developing as a person, then you're going to have the ability to cope with the challenges and the setbacks that we are bound to face and all need to be able to cope with. (R2)*

## Lessons

The use of a qualitative approach to investigate elite athletes' perceptions of balance provided an opportunity to explore and describe this phenomenon from the view of some of the world's best athletes. Important insights and lessons were shared by each athlete. Half of the athletes viewed balance primarily as having a meaningful goal, pursuing it, and making wise decisions with that goal in mind. They had a singular passion or goal but clearly wanted to make sure they were resting enough or balanced enough to pursue that goal successfully. They felt this pursuit was life enhancing and it provided

great challenge and joy. The other half of the athletes viewed balance as enjoying and respecting different major parts of their life (e.g. sport, family, and leisure time) and not being too reliant on one component for a sense of worth. Their sport was the primary passion, but they also found challenge, joy and balance in other domains of their life.

For all athletes there was an ebb and flow of personal balance during different periods and seasons in their life. This shift occurred in accordance with their priorities at that time. All athletes stressed the importance of rest and recovery time away from their sport in order to perform consistently at a high level. They also highlighted the value of being true to themselves, knowing themselves and trusting their beliefs and instincts, in order to achieve their desired level of performance and balance in their lives.

In conclusion, it is hoped that as a result of this preliminary inquiry towards better understanding balance in elite performers' lives, future studies will follow, exploring the perceptions of balance from many more performers in different domains, and perhaps including the views of spouses, children, parents, mental trainers, coaches and teachers.

It would also be valuable to encourage performers, coaches, mental trainers, and parents to discuss their own issues of balance. The goal would be to jointly construct the best possible environment in which a person could pursue and attain their desired level of excellence in any domain while maintaining an overall sense of worth and balance in their lives.

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## Reflections on an Eminent Mental Training Consultant: A Graduate Student's Perspective

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### **Abstract**

This article is based on a case study done on the consulting work of an eminent mental training consultant – Terry Orlick. The author observed and tape recorded a number of consulting sessions, interviewed the athletes involved in those sessions, as well as the consultant. Reflections on lessons learned from these first hand observations and follow-up interviews are presented.

### **Introduction**

As a first year student in a sport psychology graduate program, I learned about aspects of mental training such as imagery, goal setting, belief in yourself, constructive evaluation but what was missing from the classroom discussions was how these strategies were addressed and applied in free flowing consultant conversations. To address this missing link, I conducted a case study on Terry Orlick, an expert mental training consultant. Orlick's academic achievements included a BA in health, physical education and recreation from Syracuse University, an MEd in counseling from the College of William and Mary, and a PhD in the psychology of sport and physical activity from the University of Alberta. Since 1973, he has been a professor in the School of Human Kinetics at the University of Ottawa. He is the author of 25 applied books related to mental training and excellence, and 50 articles in refereed journals.

Based on Ericsson and Charness's (1994) theory on expertise, Orlick is an eminent consultant. According to these authors, expert performance in any field can

be attained through a minimum of ten years or several thousand hours of deliberate practice; furthermore they contend that the highest level of performance, labeled eminent performance, is attained when an individual offers unique contributions to further the knowledge in their field. Orlick has been continually engaged in applied mental training consulting with Olympic athletes and within a wide variety of high performance disciplines since 1973 (25 years). Some of the national team and world champion athletes he worked with chose to continue interacting with him for their entire athletic careers and maintained contact after their retirement from high performance sport. With regards to furthering the state of knowledge in his field, Orlick was rated by his colleagues as one of the top ten sports psychologists who had made the greatest contributions to sport psychology from 1980-1990 (Straub & Hinman, 1992). Cal Botterill (1998) has referred to Orlick as the world's leader in applied sport psychology.

### **Sources of Information**

Since I had been granted the permission to do this case study, I wanted to learn about this eminent mental training

consultant in as many ways as I could. My analysis incorporated (a) audio recordings of ten mental training sessions, (b) audio recordings of separate interviews with the consultant and with the athletes and (c) publications by the consultant. The original version of the Master's thesis (Lloyd, 1997) contains a rigorous analysis of each information source and showed how one source complemented and supported another. The purpose of this article, however, is not to focus on the analysis of the mental training sessions but rather, to give you my reflections on the mental training sessions I observed while sitting in a corner of Orlick's office with a tape recorder, and a pen and notepad in hand.

### **Athletes**

In order to gain a clearer understanding of how Orlick worked with athletes, five locally based high performance athletes participated in this study. Each of these athletes interacted with the consultant in his office during the period of February 1996 to December 1996. The athletes requested and scheduled each meeting with the consultant and each recorded mental training session lasted approximately one hour. When a date was set between the consultant and the athletes, I was contacted and invited to attend and audio-tape the session.

### **The Badminton Player (Athlete A)**

The first athlete was a female badminton player. She had competed in national and international level tournaments for about ten years and had competed at the previous Olympics. She had first been exposed to sport psychology through Orlick at a high performance training center when she was 18 years old. Later in her career, she enrolled in Orlick's undergraduate sport psychology class at the University of Ottawa. During that time, she asked to meet with him because she was injured and pre-

paring for the 1996 Olympics. Four consulting sessions were recorded in March, April, June and September 1996. The session in June occurred before the Atlanta Olympics and the session in September occurred after the Olympics.

I would like to share some real-life interactions of the consultant interacting with the badminton player. The first example revolves around Orlick helping her overcome her pattern of winning her first game, losing the second game and then having to work hard to win the third. After winning her first game, the athlete said she would often relax too much. He asked what she did between games; she said she would go to her water bottle and towel off. He suggested she put a white arrow on her bottle as a reminder to help her get pumped up to come out with more intensity for the second game. He said that this could avoid the need for the third game. Here is an excerpt from the session after she returned from her tournament. "A" refers to the badminton player and "T" refers to the consultant.

*A-..... everybody asked me what happened there on your water bottle because of the big white tape..... I said it was just for me, to remind me of something..but it worked*

*T-So tell me about it...*

*A- It was very funny because I always had a big smile because I won the first game and then I changed sides and then I went to drink some water and I saw my big arrow...I saw it and I refocused right away, I knew what it meant and then I did what it reminded me to do.*

I would like to share some specific information on how Orlick helped the badminton player to believe in herself again as she was returning to competition after an

injury. During my interview with her, she described how the consultant gave her readings on other athletes who had multiple injuries who returned to perform successfully at a very high level.

*He (the consultant) gave me some stuff to read about people who got injured before like Kerrin Lee Gartner. I started to find out what he did with them. I found out that it is possible.. this is my second injury... now it means I will be able to go back or be able to believe.*

The brace that she was wearing after her injury, was slowing her down and she was contemplating on removing it for her Olympic competition. Orlick suggested that she talk to her physician to see if her knee was completely ready (which it was). During our interview, she reflected on the importance of the consultant's encouragement with regards to her injury.

*He was probably the only person that didn't say don't take it off... He understood that my brace was heavy and that it slowed me down and basically said yes, if you are ready, go for it before the Olympics.*

The next interaction illustrates how the consultant discussed transition with the badminton player. She was contemplating how much longer she wanted to compete. The consultant assured the athlete that her transition would be positive because she had strong supportive relationships, family and other interests.

*T - You do have other interests. You have your feet on the ground. You have meaningful relationships. You have family. You've got a lot of interests so that makes it a lot easier if you are ready. If you have all those support systems and you decide, yes, I*

*am ready to move on, then most people have a very positive transition. (This turned out to be true for this athlete).*

The final excerpt between the badminton player and the consultant that I would like to share describes how the consultant emphasized joy in life. Simple joys, or taking the time to look for highlights in everyday life was one of Orlick's core philosophies. This approach to positive thinking was one of the biggest and most important lessons I have learned from the consultant.

*T-if you are not practising, when it is nice out, just enjoy the outside a little bit....Go for a walk.*

*A-Yes you are right.*

*T-Just feel the sun or air. Just enjoy the moment.*

### **The Archer (Athlete B)**

The second athlete who participated in the study was an archer who had competed in national and international competitions. He was ranked number one nationally and had achieved world record scores in practice. He has also won many competitions among professional archers.

The consultant had been working with this athlete over a period of four years. It had been approximately a year since their last meeting. Orlick commented that, "Once he (the archer) started getting better at figuring out for himself what he had to do, then I would see him less and less." One session was recorded with this athlete in June 1996. This meeting took place during the competitor's off season.

The first quotation from the session with the archer gives an indication of how

much time had passed since their last meeting because in this debriefing outcome, competitions, focus, distraction control and physical elements such as timed breathing were all addressed in a single paragraph.

*T - What is the world record?*

*B- World record for indoors is 298 (out of 300) but I had that at the Canadian Championships this year. You are hitting the size of a dime 60 feet away. You are really focused but if I am in a tournament and things are really going well then I am really tuned out to everything else that is going on. If I had family and friends there they will come up and ask me something and I will walk away. It is almost like it doesn't register, I am so focused on what I am doing. A number of times it has got me working on timed breathing and I am actually trained so I hear my heart beat when I shoot. I just turn everything else off, everybody else is shooting around me and I turn off and listen, and when I get peaceful I can hear my heart rate going. As soon as I can hear my heart rate going, I can get in sync with it for my shooting and then I can only shoot in between heart beats.*

The next excerpt describes the focus specific to shooting an arrow. The archer was explaining how he felt relaxed and content when he fully connected to the center of the target. He didn't try too hard and he trusted his body to make the correct movements.

*T- When is your focus at its best?*

*B- It is almost when the zone is so clear there is almost a micro zone where this is extremely focused. Outside of this is not quite focused but on the inside there is a state which you could call ultimate contentment with relaxation.*

*T- Within the centre...*

*B- Yeah it is in the centre of that. When I am in there and I shoot it, I am in the lock on zone. There is a part of me there that isn't thinking about shooting.*

*T- Um hm*

*B-There is a part of me that doesn't care about shooting, performing the shot or executing perfectly because I know when I do everything right back here, it is going to go where it is supposed to up here. And if I try too hard to make it go...*

*T- Yes*

*B- ...that creates the barrier.*

Another part of the debriefing between the consultant and this archer revolved around imagery. Note that the consultant asked specific questions about whether the athlete was simulating the real movements of shooting an arrow in the visualization process (e.g., by actually going through some of the motions). I included this quotation because assuming a correct body position during imagery can be a key element of helping to maintain a connection with the kinesthetic component of the visualized movement.

*T-What are you doing when you are doing your **imagery** of the shooting sequence? Do you go through that whole sequence with **imagery** ...*

*B- Yes every single time (before every shot).*

*T- (And when you are away from the shooting range) are you doing it lying down, sitting or...*

**B- Most times I do it when I am sitting because I can also do it when I am on the bike during the day or when I have a half an hour lunch I'll sit and close my eyes and think about it. But I have noticed sometimes when I close my eyes I can't get a good picture on it, I have to open my eyes and focus on something that I can get a picture on**

**T- And are you moving when you do it?**

**B- I am sometimes if I don't get a good feel on it. ..I set my shoulder and my back tightens up maybe push my shoulders back together so I can feel it and I pull.**

### **The Judo Competitors (Athletes Ca & Cb)**

The judo competitors, one female (Ca) and one male (Cb), had competed in national, and international and Olympic tournaments. They were a married couple who often met with the consultant together. They had been working with the consultant for a duration of two years although the male athlete felt that he knew the consultant for a longer period of time because he had previously read many of his books. One session was recorded with these two athletes in February 1996. This session occurred before the Nationals and after an international competition for the female athlete.

During the session, the male judo competitor discussed the politics of competing after an injury and the female competitor updated the consultant on her last competition. One of the new tactics that the female athlete tried when she was at her last competition was not to check out the draw (who she would fight) until the day of the fight. When she looked at her draw early (in the past) she tended to worry about her competitor.

**Female (Ca)** - I did something different this time. I didn't look at the draw until the morning of the fight because sometimes you can see who you are going to compete against 3 days in advance. And you just start looking at that person and ... (think) she looks in such good shape and you look at her in the tournament and her training ...laughs.. so this time I didn't look until the last (day). The morning of the tournament I didn't look. I just asked the coach who I had first and I didn't want to look and it was much better.

The interview with the judo athletes was very informative and interesting because they shared a friendship with the consultant. The couple often met with the consultant outside of his office and enjoyed walks with him in the forest near his house. The following quotation describes their perception of Orlick's listening ability.

**Female (Ca)** - He is a great listener. He listens so well. I would be bored to just sit there and listen to people's stories. You feel like with him, he is "there" and he just listens and listens and listens. I can't believe how he is good at this.

**Male (Cb)** - I think he is very patient... He is like a deer. He just kind of looks at you, and his ears are kind of turning and tuning in. He kind of looks like a deer too.

**Female (Ca)** - That is true. He is so good to us. It is like the whole world just stops... You just spend an hour, hour and a half with him, and it is so good.

### **The Figure Skater (Athlete D)**

The figure skater, a previous junior national champion, had competed in national and international competitions. Four sessions were recorded with the figure skater. The first two sessions took place in

September 1996. Another took place in November 1996 before a sectional competition and the final session was in December 1996 before a divisional competition. She subsequently placed second in the senior ladies category and in her next competitive year, she won the Canadian national championship.

The figure skater discussed many issues with the consultant, such as, believing in herself, being positive, skating near the end of a flight because she didn't like to take her skates off between her warm up and competition, and visualizing jumps.

The following quotation is from the skater's second session with the consultant. She discusses how her belief in herself would waiver during her training but be strong off the ice and in competition.

*D - ..I know off the ice I can be the Canadian Champion but when I go on the ice I think of what I have to achieve before I go to Canadians and it seems so far away and yet Nationals is only in 5 months. And so then, I stopped believing in myself...I mean I still push myself to achieve that goal but I don't trust myself with it...I know off the ice I can do all those jumps because I have done them before but once I go on the ice I just erase it, ... trying and believing are two different things and if I believe then I could probably land them.*

*T - So if there is a shift in belief, it is when you step on the ice to perform in a competition or practice?*

*D - In a competition I believe in myself.*

Orlick asked the figure skater to reflect on her jumps in competition because that was when they were best. The following quotation describes how the consultant

wanted her to approach her jumps in practice.

*T - In a competition you are more pumped... how does that triple feel?*

*D - It is really easy, it feels like a double.*

*T - Yes and that is what it should feel like. It (a triple) should feel like a double.*

*D - But it doesn't happen everyday (in practice)...I know I am capable of doing things like that but to get the same feeling to do it all the time..*

*T - What I would suggest you try is just turn up your intensity a little bit before you go. Make it good rather than doing so many. So however you get pumped, imagine that this is in a competition or there is a dial inside you and maybe you are at about a 7 on your intensity and you just turn it up. Go after it, say I am going after this thing. It is going up and I am landing it, period. Then don't think, just do it. But you have to have somewhere in your brain that you are going to land the thing.*

## Personal Reflections

There are many lessons that I have learned from this eminent mental training consultant through the course of this case study and the group discussions that took place in his graduate applied sport psychology classes. The themes that I would like to address are (a) athletes setting the agenda, (b) knowing when to listen and when to share information, (c) continuous learning, (d) passion for consulting, and (e) time for rejuvenating.

## Athletes Setting the Agenda

Most of the mental training sessions would start with the consultant asking for an

update of what was happening in the athlete's life. Here are some examples of the consultant's opening sentences. "T" refers to the consultant's text.

Badminton Player - Session 1: *T- So a little update would be nice.*

Badminton Player - Session 4: *T- Maybe we can start with your Olympic experience and move on to where you are going and what is going on.*

Archer - Session 1: *T- It has been a while since we have talked so maybe you can give me a little update and see where we are going from there.*

Judo Competitors - Session 1: *T- I talked to (male judo athlete) briefly but I haven't seen you (female) for awhile. How did it go over there?*

Figure Skater - Session 2: *T- Okay, well first, how did the week go?*

By starting the sessions with updates, many relevant issues were brought up in each mental training session. I asked the consultant before a session began, if he had a plan and he simply said that he would see what the athlete wanted to discuss on that day. I realized that the topics addressed in the sessions were never limited to a pre-determined agenda from the consultant. Rather, a multitude of issues might be addressed, in one session, based on the input provided by the athlete, e.g., the athletes were free to share, unload or raise different issues. For example, the content for the update session with the archer, which occurred one year after his last session with the consultant, contained all the seven elements of Orlick's (1995) Wheel of Excellence (commitment, belief, full focus, positive images, mental readiness, distraction control, con-

structive evaluation) plus other relevant issues.

As an aside, while I was presenting some preliminary findings from this study, I was asked if I could forward detailed descriptions of the mental training sessions' content. The requester stated that she would often run out of themes for her mental training sessions and was looking for new ideas. This person, and others I'm sure, believe that it is up to the consultant to direct the theme of the session, e.g., discuss goal setting one day and imagery another day. Orlick, on the other hand, lets the athletes set the agenda and he follows their lead.

### **Knowing When to Listen and When to Share Information**

I noticed that in a mental training session, where many issues were addressed, Orlick was highly skilled at honing in on the most relevant areas and sharing his expertise on those specific topics. I believe that this ability is a result of the combination of (a) his acute listening skills, (b) his willingness to share something of himself, e.g., a creative idea or a plan, and (c) his intuitive ability to read an athlete's level of receptivity.

Orlick was exceptional at gathering information from the athletes and listening intently to what they had to say. Watching the consultant ask so many relevant questions and pull so much information from the athletes was an eye-opener for me. He was good at getting them to talk, he would never cut them off and you would see their key issues surface. While I was observing the session, even though athletes may have addressed a number of issues, I could see within two or three minutes that he was able to draw out what was important for the athletes to work on. However, he did not address those issues as they were presented, he let them slowly unfold and he just continued

to listen. My gut reaction, out of sheer keenness, would have been to address those issues right away while Orlick was very patient.

Prior to this study, I learned that to be an effective consultant you really had to listen, make eye contact and get fully absorbed with what the athletes were telling you. One of the biggest lessons I learned from observing Orlick was that you also have to be active in giving something of yourself back. Some people believe that athletes or hold all of the answers to their own questions and the sole function of a consultant is to facilitate the process of helping them find their own solution. Orlick does not consult in this fashion. He was an exceptional listener, but what he didn't fully reveal in the context of the classroom, was what he gave back after he fully heard what the athletes wanted to discuss. He was not passive in the problem solving role. He was very creative and offered many suggestions and plans for the athletes to try. He tailored the plans for their specific situations and the design of the plan came from the information he intently listened to and processed.

Orlick was very intuitive with respect to the timing for making suggestions or sharing his applied sport psychology knowledge. His own reflections on his interactions with the figure skater shed some light on his ability to wait for an opportune teachable moment.

*You have to pick your spots... You have to let the person talk and say what she wants to say so she is on her track, so she can go anywhere... then there will be openings where you can just kind of get something in, or at the end, kind of bottom line it for her... these will be the times where I feel she will be really connected.*

Orlick's interpersonal skills were exceptional. The athletes felt very comfortable in his presence and most of them thought of him as a wise friend. Nobody referred to him as Dr. Orlick, first names were always used. With regard to the language the consultant used, it was always simple and expressive. The ability to turn complex situations or difficult concepts into something simple and tangible is an art that this consultant has perfected.

Another reason why athletes felt at ease in expressing their athletic experiences with him was they felt he really understood them and their situation. The badminton player stated, "He is not just somebody in sport psychology that hasn't really worked with athletes, he knew what I was talking about."

In my Masters thesis (Lloyd, 1997), the consultant's behaviours were categorized as being indirect or direct. Indirect behaviours involved the consultant acquiring information from the athletes. Direct behaviour revolved around the consultant sharing his applied sport psychology knowledge and giving suggestions or directions. Times where Orlick was indirect or direct were measured with a systematic coding of the mental training transcripts. The extent to which the consultant was indirect or direct was grounded in what he felt was most appropriate or relevant for that athlete at that time, as indicated in the following examples.

With the badminton player, the consultant was more direct in the two sessions prior to the Olympics and more indirect in the session following the Olympics. This result illustrates how the consultant gave more information or reminders to the athletes prior to going to a major competitive event and recruited more information from the athlete when it was over.

The consultant's interaction with the world class archer was mostly indirect. Since the session took place at the end of the archer's competitive season, the consultant was seeking specific information on the athlete's experiences and mental performance. The athlete was not seeking specific help from the consultant, rather, he wanted to share his successful experiences with someone who understood the intricacies of what he accomplished.

During the session with the judo competitors, the consultant was slightly more direct. The direct behaviour was related to helping the male create a plan to deal with the personal and political challenge of recovering from an injury sustained in the Olympic year. The indirect behaviour was in response to the update of the female competitor's most recent competition.

The consultant was more indirect during the first session with the figure skater since this was the first time the athlete met with the consultant. Orlick sought detailed information from the athlete during this session to get a feeling for what the athlete needed to work on to improve her performance. The consultant was mostly direct in a subsequent session which took place the day before the athlete left for a divisional competition. The athlete clearly wanted a plan to deal with the order in which she was to skate because the competitor did not like to skate last.

### **Continuous Learning**

An overriding phenomenon that surfaced from observing this consultant, was the way he combined the lessons that he learned from each aspect of his life. Everything seemed to be retained and put to good use. Ideas that surfaced during mental training sessions or conversations with performers and students such as myself were

often the seeds for new interventions, reflection or writings. For example, while he was consulting with one athlete, he used the two tone colour of a coffee table in front of him to describe two zones, a gold zone of performance and a green zone of life. This idea was further expanded later and used in the conceptual structuring of the book he was writing at the time (*Embracing Your Potential, 1998*).

Orlick's philosophy of ongoing learning was reflected in the approach adopted by the athletes. The archer was kept a detailed journal of his training and competitions to ensure that he learned from each experience. He was always looking for the perfect combination of rest, nutrition, physical and mental training. His approach to learning was meticulous and humble. Notice in the following excerpt from the session with the archer how the consultant reinforces the perspective of continually learning from every experience.

*T- I think you are right on track as long as you can keep respecting what works for you and try to keep **learning** and try to keep pulling out the tiny things you **discover**.*

*B- Well that is how I feel deep down inside. I feel that there is so much there, so much to learn,... if there was a scale from 1 to 10 and 1 was beginner and 10 was absolute perfection, right now I'd feel like I was about 6, that is how much I have to **learn** about the sport before I kid myself. And 6 for me is very very successful.*

### **Passion for Consulting**

It was inspirational to be with someone who loved his work so much. Orlick always looked forward to meeting with the athletes and sincerely wanted to be updated on their experiences. He often took time out of his busy work and personal schedule to

watch athletes practice. He enjoyed watching them and would always comment to them and myself on their performance in a positive way. No matter what, he could always find something good or positive to say.

He once said that after meeting with an athlete he felt that a little part of himself was out there with them. Orlick also commented that once he invested in a person or a team (over a period of time) he felt like they were extended family because he felt connected to their growth. The passion that Orlick felt for his work was one of his qualities that made him effective.

### **Time for Rejuvenating**

Orlick is a man in demand. He is often bombarded with people trying to get something from him because he is so good at what he does. I sometimes wonder if he has ever had a peaceful walk down the hallway at the University of Ottawa because every time I see him, there is always an eager, chatty student in his presence. In the first chapter of his book, *Nice on My Feelings* (1995) he states that,

*There are times that I feel I spend my whole day or my whole life giving - and getting very little in return. I may listen to 50 or 100 calls, and everybody seems to want something. It's an extremely rare pleasure when someone calls and offers to help me with something, or to give rather than to want. These experiences are reminders that I have to take care of my own needs, as well as others' needs. I have to become responsible for finding a sense of joy and balance in my day and my life. No one is going to do that for me (p.13).*

Orlick's love for nature helps create balance and joy in his life. He often speaks and writes about special things that happen to him in nature - his morning run, the

sounds of a stream or a deer that crossed his path. I believe the combination of exercise, fresh air and the spiritual sensations from absorbing himself with nature were the key factors in rejuvenating himself.

Orlick is also selective in where he spends his energy. He is a hard man to get in touch with (remember he can get up to 100 requests per day) but if you really want to see him, you will always find a way to meet with him in person. Recall that the judo competitors said that an hour or an hour and a half with Orlick is so good. The reason it is so good is because he rests when he needs to rest and is completely focused when it is time for him to focus.

I am very grateful for having so much of Orlick's time to conduct a case study on him. I feel that I had the richest experience that any graduate student could have asked for because I got to see Orlick do what he does best - listen, share wisdom, and care about athletes.

### **Conclusion**

I realise that only a glimpse of this consultant has been captured in this reflection article but it is my hope that you have gained a deeper insight as to how one of the top mental training consultant approaches and conducts mental training sessions. Lett (1987) suggested that much can be gained from counselors of long experience, particularly with respect to the extent of the creative adaptation of the counseling process that develops over time. I feel that learning from expert consultants is the missing link in applied sport psychology training. Following this consultant around during his working day not only provided me with a concept of how mental training skills are applied to specific individuals but more importantly, it gave me the confidence to start working with athletes. It is my hope

that you, the reader, do not generalize that this mental training consultant's approach is representative of all effective consultants. Rather, my goal was to inspire you to reflect

on your approach to mental training and take one step closer to being the best consultant you can be.

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## Modelling Mental Links to Excellence: MTE-2 for Quality Performance

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### Abstract

We developed the Mental Training Exercises (MTE 1 and 2) in response to requests from athletes to provide them with a convenient way to understand, acquire and/or fine-tune their mental skills in order to improve maximally from practice and compete at their best. Our collaborative, deductive procedure involved developing items from our pooled experience from working with high performance athletes. The MTE-2 comprises thirty-five items which provide concrete behavioural representations of five types of mental skills (pre-competition focus, pre-competition distraction control, competition focus, competition distraction control, and post-competition learning) which characterize the approach that top performers bring to quality performance. By modelling important mental skills, and by providing self-rating scales for each, the MTE-2 enables athletes and other performers to assess their own mental skill strengths and deficits relevant to maximizing their competitive performance. Consultations with high performance athletes and other high level performers has confirmed the utility and meaningfulness of the MTE-2. Preliminary evidence of criterion validity has also been shown. This article illustrates practical ways for consultants to use the MTE-2. A complete copy of the standard MTE-2 is provided.

### Introduction

The Mental Training Exercise for Quality Performance (MTE-2) is a set of thirty five questions designed to guide athletes and others toward enhanced **performance**. Our previously described MTE-1 for Quality Practice provides a set of questions representing prerequisite orientations and mental skills for high quality **practising** (Partington and Orlick, 1998). We believe that the MTE-2 is equally important to model how to prepare for and deal with the challenges and pressure of actual competition and/or public performance.

Our research and consulting experiences have vividly identified important links

between level of performance achievement and certain key mental skills and perspectives (e.g., Orlick and Partington, 1986, 1988; Orlick, 1998; Partington, 1996). Through the highly specific questions in the MTE-2 we share these key prerequisites or mental links to excellence in such a way as to benefit a wide range of potential users, especially athletes/performers, and coaches/teachers. Each of these questions draws attention to a prerequisite orientation or mental skill for attaining and sustaining ongoing performance excellence. We know how frustrated and disappointed athletes can feel after they “lose it” in a key moment before or during a performance especially after months or years of dedicated work. Many

serious athletes wonder about the kind of mental skills that truly great performers bring to their game. Some have directly asked us how their own mental skills and perspectives compare with the “great ones” who seem to stay on track through the ups and downs, even in clutch situations. Perhaps there is no single “success blueprint” or simple formula that guarantees success; however we do know from our experiences with great performers that they bring a distinct set of mental skills and perspectives to their pursuit.

In this article we describe the MTE-2, and outline why and how it can provide you and other users with an effective guide to help you achieve a higher quality of performance and higher levels of consistency, particularly when performing under pressure.

### **Positive Experience With the First Draft**

Since the MTE-1 proved to be reliable and valid in practical settings (Partington and Orlick, 1998), we used the same test construction process with the MTE-2. We wrote thirty five concrete mental skill items to represent what top athletes do to attain quality and consistency in their pre-competition focus, pre-competition distraction control, focus during competition, distraction control during competition, as well as how they draw out and act on lessons from each competition. In our first draft of the MTE-2 we provided a four point rating scale for each item (i.e., 0 - “never”, 1 - “seldom”, 2 - “usually”, and 3 - “always”) to enable the respondent to report the consistency with which she/he uses each of the mental skills immediately before, during and after competitions. We also included several open-ended questions of the “what do you do” type. This was to ensure that each user would clearly reflect upon and identify their current strategies, and perhaps discuss and

compare strategies with team mates and others.

We gave this draft of the MTE-2 to forty six athletes who were consulting with us at that time. We learned that these athletes’ self-ratings on the MTE-2 helped them to pinpoint areas for discussion and target areas for improvement through mental training. These athletes were interested in the content of the MTE and seemed to enjoy reviewing their self-ratings during one-on-one consulting sessions. In many cases, they spoke about their mental skills objectively, almost as if they were viewing their mental skills ratings as an outside observer who was looking at their strengths and identifying areas where they could benefit from improvement. The athletes appreciated the opportunity to become more aware of the overall scope of mental skills training, their own mental strengths, and where they needed work. They also suggested some improvements for the MTE-2 which included revised wording for a few items, and the provision of a more graduated response scale to enable them to make finer discriminations for assessing their mental skills. Hence, we revised the MTE-2 by clarifying or simplifying the wording of some items, and by providing an eleven-point response scale (i.e., “never do this” - 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100 - “always do this”). The complete revised MTE-2 is presented at the end of this article.

### **Validity**

As was the case with the development of the MTE-1, our goal with the MTE-2 was to create an immediate means for modelling relevant mental skills, and for providing a clear and simple self-assessment process to help a growing number of athlete/clients determine how to best direct their mental training efforts.

At this point we are able to provide a preliminary demonstration of MTE-2 criterion validity. The reasoning which guides this demonstration is as follows: If mental readiness is a state which distinguishes between athletes/performers of different levels (Orlick and Partington, 1988; Orlick, 1997), then we would expect noticeable differences in self-reported mental skill levels on the MTE-2 between world champion, national team, and university varsity level athletes. We did find these differences in comparisons between athletes which we had available for this assessment of MTE-2 validity. To represent the world champion level we used MTE-2 scores from a currently competing elite level rower who had won an Olympic silver medal, followed by two consecutive World Championships. For the National athlete level we used the scores of fourteen athletes representing alpine skiing, basketball and equestrian, none of whom had yet distinguished themselves at the international level. Finally, the university level athlete was represented by twenty six varsity players from a variety of different team and individual sports (including football, basketball, soccer, hockey, fencing, running and gymnastics).

Table 1 shows expected differences in support of the criterion validity of the MTE-2. First, in the left-hand column observe the very high raw scores of our elite athlete on each of the thirty five items. This demonstrates the link between high competitive achievement and well developed, highly consistent mental skills. Though the scores for this elite athlete are dramatically strong, they are not surprising to us given the fact that each of the items on the MTE-2 emerged from reports of mental skills used consistently by other great athletes; the items represent how they focus to achieve success. Next, compare those high raw scores against the lower mean item scores

representing athletes at the national and university levels. Also note that the national level mean scores are slightly higher than those of the varsity athletes on all but one of the thirty five mental skills. Finally, to demonstrate the practical significance of these differences, we presented, for each of the thirty five mental skill items the proportion of athletes in the national and university groups who definitely needed work on each skill, as reflected by an item score of "70" or below. The third and fourth columns in the table show these relative proportions. As expected for athletes at these levels, a higher proportion of university athletes needed work on most of these mental skills; but more importantly using the criteria of 70 or below, many athletes at both levels needed work on a variety of the thirty five mental skills which are modelled in the MTE-2. In summary, the MTE-2 items represent mental skills which, based on self-report ratings, serve to distinguish between athletes of various achievement levels. That is, the MTE-2 appears to model and measure what it was designed to do.

### **User Feedback on the Utility of the MTE-1 and MTE-2**

Each of us, as well as a few of our advanced practicum students, has been using the Mental Training Exercises extensively over the past seven years with athletes, performers, and others interested in self improvement. We now believe from these experiences that anyone who is committed to specifically targeted personal/performance improvement can benefit from using the MTE 1 and 2. Our conclusion about the utility of these mental training exercises has been strengthened by positive user feedback as reflected in the following typical comments.

**Table 1. Evidence in Support of MTE-2 Criterion Validity**

Individual Items	Item Scores			% Need Work	
	Elite	Nat'l	Univ	Nat'l	Univ
<b><u>Precompetition Focus</u></b>					
1. Lead up time - get lots of rest	100	89	76	7	46
2. Lead up time - know what focus work best	100	81	76	29	50
3. Success at attaining this focus	100	79	76	36	38
4. Success at maintaining this focus	100	81	70	29	62
5. Just before competing - know best focus	100	81	60	21	65
6. Success at attaining this best focus	100	82	69	21	62
<b><u>Distraction Control</u></b>					
Refocusing success before event when worrying about:					
7. - not being ready	100	74	68	46	54
8. - losing	100	77	72	45	24
9. - getting hurt/being injured	100	78	84	31	24
10. - teammates	100	85	74	18	43
11. - officials and judges	100	83	76	30	50
12. - family and friends	100	77	75	36	42
13. - media	100	81	81	10	35
14. - coaches comments/behaviour	100	83	64	27	71
15. - refocusing between events - know how	100	77	75	29	50
16. - refocusing between event - success at doing it	100	76	70	50	69
<b>COMPETITION</b>					
<b><u>Focus at competition site</u></b>					
17. Remind self of strengths	NA*	83	75	21	35
18. Look for advantages/opportunities	100	79	72	43	58
19. Find reasons to believe in self	NA*	79	74	36	50
20. Leave outside concerns behind	100	89	78	14	35
21. Know best performance focus	100	85	67	15	62
22. Success at maintaining best focus	90	76	70	43	65
<b><u>Distraction Control During Competition</u></b>					
Refocusing Success when faced with the following situations:					
23. - making an error	80 NA**	80	59 67	29 50	85 52

**Table 1. (Continued)**

<b>Individual Items</b>	<b>Item Scores</b>			<b>% Need Work</b>		
	<b>Elite</b>	<b>Nat'l</b>	<b>Univ</b>	<b>Nat'l</b>	<b>Univ</b>	
24.- poor officiating	NA**	77	67		50	52
25. - opponents great performance	100	74	67		57	64
26. - not feeling 100%	90	74	59		36	85
27. - negative thoughts	100	76	55		43	88
28. - coaches comments/behaviour	NA***	79	60		38	67
29. - difficult environmental conditions	90	82	75		23	46
30. - change in momentum	80	75	69		45	68
31. - being evaluated	100	76	63		42	71
32. - thinking about outcome	90	73	72		67	60
<b>POST COMPETITION</b>						
<u>Learning and Refocusing</u>						
33. Success at drawing out lessons	90	78	68		23	64
34. Success at acting on lessons	90	76	66		38	77
35. Leave things that didn't go well behind - refocus	80	69	60		54	73
-----						
* “Don’t feel the need to do it at this point - have already done it pre-competition”						
**NA (not applicable) “Not an issue for me in rowing”.						
*** “We are on our own for 30 minutes before the race for our on-water warm-up, then we race”.						

### **Encourages thoughtful objective responding**

- “I really enjoyed taking the time to carefully think through my answers for the MTE. The exercise made me reflect on a lot of different things about my sport, as well as the way I think and deal with certain situations. I have learned a lot about myself, and what enables me to practice and perform at a higher level”.
- “The questions were very thorough when asking about practice and competition situations. Due to this, I had no choice but to really think about the answers. Because of this I know that my answers were accurate, and I felt no need to change them a few days later when thinking in retrospect. By reviewing the questionnaires when they had been completed, I was able to identify my target areas. I simply went through all my answers and picked out the ones which had low scores. Also, by reviewing (my answers) I was not only able to think of some changes to be made, but I could see them on paper. They seemed more real to me that way”.

### **Adaptable to different areas of performance**

- “We all strive for different goals in life. Mine was to become more organized and have a more balanced day, week and life. Due to the nature of my self-growth area many of the MTE questions had to be adapted to my own objective. The MTE provided a helpful breakdown of mental states and self-growth strategies. My self-growth experience has supplied me with a number of strategies and mental skills that I can apply throughout the rest of my life in hopes of coming closer to my goals.

With persistence, drive and determination I know I can get there”.

### **Identifies strengths & weaknesses**

- “The MTE-2 was of value in identifying a relevant target area to work. After I completed the MTE, I went through and noticed that two areas had very low ratings - which I agree with.
- “Excellent tool to use as an indicator of my strengths and weaknesses. The MTE-2 was definitely of value in identifying relevant target areas to work on. Not only did I find out what I needed to work on more, I also developed some confidence by knowing that I had many strengths as well”.

### **Provides targets for change and shows how to fix**

- “It was obvious that both the MTE 1 and MTE 2 were able to identify a relevant target area to work on which indicated to me how I could fix it. In the MTE 2, I was able to realize that I was entering exams stressed, I got distracted during exams and wasn’t able to get back on track and I wasn’t learning from mistakes after an exam. I have benefited tremendously from the MTE because it centered me in on what I needed to do to become a better student”.
- “I feel that these (MTE exercises) really set out workable mental strategies and plans to achieve your goal. There are also examples of how to execute them and fully understand what I need as a person to achieve my goal. The other good thing is that I am able to zero in on certain things that hinder my performance and try and change them”.

### **Builds confidence and guides learning**

- “The MTE indicated my strengths as well as my weaknesses. I discovered I was very efficient at focusing. I was pleased to find one thing I was doing properly. I have always had the ability to set my mind to something and to remain focused for long periods of time. The MTE also indicated I was not drawing out lessons. This will be a technique I will use in the future. By drawing out lessons I will be able to recognize good qualities and poor qualities of a performance and I will be able to bring this knowledge to the next experience”.
- “Before starting this project with the MTE I did not realize that I could really progress in the sport of ringette by using mental skills. I had never used them before because I did not understand how to or what the benefits could be. When I tried it, it really worked. I improved in most areas on the MTE. This helped me in game situations. Most of all, doing the project helped me realize how to build up my self-esteem. I often do not think I am as good as the others and do not want to make a mistake, so I do not even try. This MTE self-growth project helped me achieve a goal that I otherwise would not have thought possible”.
- “I have now learned how to get into happy moods before running and to focus better when I become distracted during running.
- “It felt great to fill out the MTEs again after using my plan for over a month. I improved in all the areas that concerned focusing and refocusing. I think I was very effective in promoting positive growth in an area that was important to me. I can now get right back on track after any type of distraction (in the game). I do not let anything worry me concerning hockey. I have learned not to spend my time worrying about things that are out of my control, such as officials' calls. I rarely doubt my abilities anymore. I am always reminding myself of my strengths and look for advantages in any situation I am put in”.
- “My self-growth plan (more balance in life) has already significantly changed my life for the better. I feel less rushed, more balanced and in control”.

### **Consultant Guidelines**

In this section, I (Terry) briefly share three different contexts within which I have used the MTE in my work with athletes, students and other performers. The first context is within ongoing one-on-one consulting situations, the second is to facilitate self-directed learning in large classes, and the third is for guiding the pursuit of excellence with large groups of performers. First, however, let me explain how I introduce the MTE.

When introducing the MTE to individual athletes or large groups of students/performers, I emphasize that every item (every question) presented in this self assessment exercise represents a

### **Stimulates positive change**

- “Before completing the MTE exercises I was not serious in committing myself to cross-country running or interested in getting any particular goal for me to achieve. But I was strongly interested in becoming an outstanding performer - which meant I had to become more committed and set specific goals to

perspective, skill or action that the world's best performers feel are very important or very helpful in achieving their high level goals. I emphasize that it is important to be totally honest with yourself in responding to each of these MTE questions, if the exercise is to be of real value. I find this reminder is more important when working with large groups of respondents than when using it in ongoing one-on-one consulting situations. I also point out that truly great performers I have worked with consistently rate themselves very high on virtually every item on the MTE-1 and MTE-2. There may be one or two questions that they do not find particularly applicable to their situation but most questions are highly applicable and receive very high ratings (mostly 100's and 90's). It is also interesting to note that even the world's best athletes have some room for improvement. For example, the elite athlete ratings presented in this article show three scores of 80 on the 35 questions which make up the MTE-2. With work, the skills representing these three "lower" scores could be improved.

### **One-on-one consulting with the MTE**

My experience has confirmed that when consulting one-on-one with high performance athletes, most of them can quickly identify where they need work to enhance the quality or consistency of their performance. When consulting with many athletes at this higher level, within a one-on-one context, they may not need the MTE. I can just sit down and talk with them, ask relevant questions about what they feel they need to work on, listen attentively, and work together to make these improvements.

However, the MTE can be most beneficial in one-on-one consulting situations when it: 1) provides the consultant or performer with a practical and relevant structure for what they are doing or

attempting to do, 2) gives the consultant or the performer a clearer understanding of what mental skills or perspectives are important, 3) identifies important individual strengths as well as specific areas for improvement, and 4) gives performers a way of comparing their mental skills with the best.

Another advantage of the MTE is that a performer can identify a relevant target area for improvement, set a plan to improve, act on the plan and then go back and re-rate himself or herself on that item. This can help the performer and the consultant assess progress. An example of this occurred when a basketball player I was consulting with identified competition distraction control (question 28 - coaches comments) as an area that needed work, because it was interfering with his game focus. He rated his skill at doing this consistently as 40 out of 100. Together, we developed a refocusing plan to deal with this specific item, so that he could shift focus away from the coach and get back to executing his game plan. He worked on this skill for three weeks. When he returned I asked him to re-rate that same question on the MTE-2. He rated it as 85. He commented, "My performance really got better by practising that simple shift in focus, every day".

When I use the MTE, I almost always use **both** the MTE-1 for Quality Practice and the MTE-2 for Quality Performance, as I feel both are extremely important in achieving performance excellence. It takes about an hour to complete both forms, about 30 minutes each. In one-on-one consulting situations I will give the MTE to an athlete/performer only if I feel his or her commitment to developing the mental game is strong, or if I feel he or she really wants to make improvements. In

this case I tell them a little about what the MTE is, what it is designed to do and how long it takes to complete. Then I tell them they can decide whether or not they want to do it. If they choose to do it, they usually take it home, fill it out, and bring it back the following session.

Once the MTE is completed I like to read through it thoroughly before meeting with the athlete/performer. I look for strengths (items that have the highest scores) and look for areas that seem to need most improvement (lowest scores). I often jot down a few comments on the MTE next to responses that jump out at me (e.g., "This is a great strength" "This could probably benefit from improvement"). I also look closely at what the performer writes down in response to open-ended questions (e.g., what is your best competition focus). Before our meeting I photocopy the MTE so that we can each have a copy in front of us. I begin by pointing out strengths. We then identify areas that might benefit from additional work. Together we decide on what is most important right now and develop a little plan to make those improvements. We also discuss some of the open-ended responses which reflect strengths and areas to improve, to get more detail on what works best and what interferes with best performances. For additional comments on how we have used the MTE, see Partington & Orlick (1998, pp. 84-87).

One reason I feel comfortable giving the MTE to committed athletes/performers is that the personal feedback I have received from these people has been very positive. Many elite athletes have reinforced the belief that everything that is really important for performance excellence is in MTE and that it is a great reminder of what they have to do to perform to their capacity.

### **Large group work with the MTE**

When using the MTE-2 with groups of performers I emphasize the fact that from a mental training perspective, competition actually involves three phases - pre-competition, competition, and post-competition. Each of these phases demands particular mental skills and practices in order to focus, deal with distractions, and to get both maximum performance and maximum benefits from the experience. I then ask the group the following question "Are your thoughts and focus working for you or against you during those times"? The MTE-2 is designed to help you get your thoughts and focus working for you more consistently, in the same way that great performers do.

The first large group context within which I used the MTE with great success was a large university class (140 students) most of whom were athletes or performers in other disciplines. The content focus of this class was applied sport psychology - mental training and excellence. The format for learning included applied presentations, discussions, and readings, but most important was the opportunity for students to carry out a self growth project aimed at making a positive change in their own performance or their own life.

Early in the course students were asked to:

- Pick a sport, performance or life domain to which they are committed, and within which they would like to improve in some way, for example in sport, dance, music, academics, work, relationships, health, fitness or balanced living.

- Complete relevant questions on the MTE 1 and MTE 2 keeping this domain in mind.
- Read over their responses on each of the items in the MTE 1 and MTE 2 and select a focus area to work on that they think will help them come closer to reaching goals or living their potential.
- Complete the self-directed interview in *In Pursuit of Excellence* (1990, page 46) keeping this focus area in mind.
- Write down a plan to make those improvements. Draw upon their own experiences, as well as relevant strategies or planning forms in *Embracing Your Potential* (1998), *In Pursuit of Excellence* (1990), *Psyching for Sport* (1986), or other relevant material.
- Act on the plan by applying the strategies selected, assess and revise the plan based on lessons from personal experiences (over a period of 8-10 weeks).
- Go through the MTE again and re-rate themselves to indicate where they are now on each relevant item.

Over the duration of this course various strategies for self-directed growth were discussed and practical readings were provided. However, no **individual** feedback was provided on the MTE or the self-directed change process. At the end of this project all participants reported meaningful improvement in the mental skill area(s) selected, and in their overall performance. They also indicated that the MTE had been a

very helpful guide for making those improvements.

Another initiative where I found the MTE to be valuable in a group context was with a group of 122 of the best young performers (aged 18-22) involved in a variety of different technical trades (e.g., cabinet making, automechanics, brick laying, culinary arts, hair dressing, jewellery making, plumbing, and 33 other trades). Most of these performers were either enrolled in technical schools or were working as apprentices with experts in their specific trade. These 122 performers were selected from across the country to compete in a National Trades Competition which would also serve as a selection competition for a four day International Trades Competition. One competitor per trade, per country, would compete in this international event involving approximately 33 countries.

One year before the international competition and 7 months before the selection competition, the entire group of performers was brought together for a 1½ day workshop which focused exclusively on mental preparation for quality practice and quality performance. During this workshop each performer completed the MTE-1 and MTE-2. The questionnaires were collected at that time and later carefully reviewed and returned to each performer by mail. The wording on some of the MTE items was altered to include “trade or skill area” in place of sport or performance domain.

For most of this group the whole idea of mental training was new and few had relevant competitive experiences to draw upon in developing or refining their own competition plans. It would have been an advantage to have an opportunity for individual one-on-one contact to review each participants' MTEs and develop action

plans together, however, this was not possible given the context of the situation. Instead, I took the following three steps: first, I carefully reviewed each participants response for each item on the MTE 1 and MTE 2 - in order to identify and point out any strengths reflected on the questionnaire; next, I identified areas which, if improved, could enhance the overall quality or consistency of their performance; finally, I suggested a simple way to make an improvement (e.g., "develop a little refocusing plan so that you are prepared to deal with this distraction in the competition and practice it").

It took me about 15 minutes to go through one performer's responses on the MTE-1 and another 15 minutes to review their MTE-2, giving this kind of constructive feedback and making a positive summary statement at the end. I felt it was important to give specific individual feedback, and to include encouraging comments on each person's questionnaire to help these performers continue to move along towards their personal potential.

In that these participants were spread out across a very large country and did not have resource materials readily available to read (e.g., applied sport psychology or mental training books), we decided that some short, concise information that addressed each content area on the MTE would be of value. Thus, I provided participants with about a half a page of written material on each MTE subscale (e.g., pre competition focus, pre-competition distraction control, competition focus, competition distraction control, post competition learning). I also gave them a Binder/workbook briefly outlining how to develop a competition plan and refocusing plan, which included some simple Planning forms.

For those who wanted additional readings or examples of real plans from high level performers, I referred them to my web site [www.zoneofexcellence.com](http://www.zoneofexcellence.com). All they had to do was click on "Free Articles". They were also given my E-mail address in case they had any questions or comments. It was clear from my interaction with these participants that some were highly committed and highly capable of self directed learning and others were not. Some participants had no idea of how to make the improvements that were identified on their MTE. This additional resource information and the opportunity for individual contact over the Internet was necessary to make the desired improvements within the time frames they were facing.

As this article goes to print we are still engaged in consulting work with this team. To date, the MTE has helped to provide these performers with a clearer understanding of the practical mental skills linked to excellence and has targeted strengths as well as specific areas for improvement. We will solicit individual feedback from all participants at the conclusion of this project and hopefully grow from their experiences and input.

## References

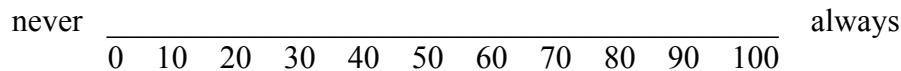
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## MTE-2 - Mental Training Exercise for Quality Performance

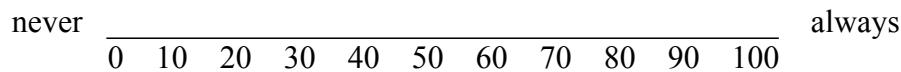
The following questions are designed to help you to understand and strengthen your pre-competition focus and competition focus. The items are based on what top performers do to perform at a consistently high level of excellence. Answer the questions with reference to the sport or performance domain to which you are most committed at the present time.

### I. PRE-COMPETITION FOCUS

1. During the lead-up time to major competitions it is important to be well rested. Do you give yourself the best chance of achieving your goals by getting lots of rest so you feel energized and ready to go?



2. During the lead-up days or hours before your competition, it is important to think and act in ways that allow you to feel positive and ready to perform. Do you know what works best for you?



- A) What do you do and/or think about that helps you to feel positive during this lead-up time?

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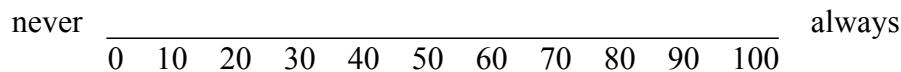


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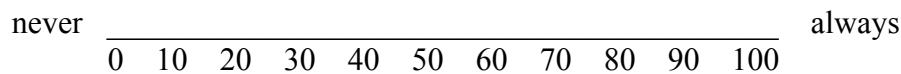


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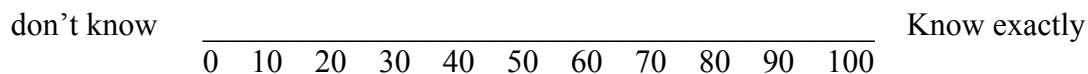
3. Are you successful at getting into your positive ready state during this lead-up time?



4. Once you are into this state, are you successful at maintaining it?

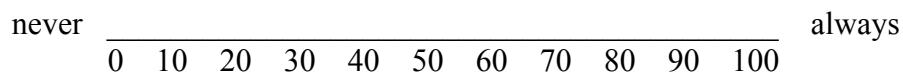


5. It is important to do and/or think about things that allow you to feel positive, focused, and ready to perform **immediately before competing** (the last 30 seconds). Do you know what works best for you?



- A) What do you do and/or think about that helps you feel positive and focused **immediately before competing** (last 30 seconds)?
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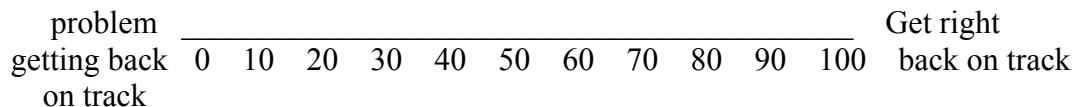
6. Are you successful at getting into this positive ready state immediately before competing?



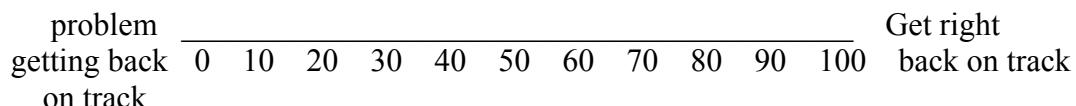
## **II. PRE COMPETITION - DISTRACTION CONTROL**

Before your event starts there are a number of things that can distract you or take you away from your best focus. For each of the possible distractions below, how successful are you at refocusing and getting back into your positive ready state?

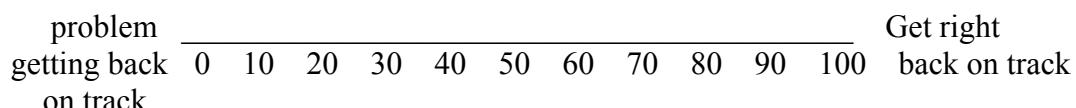
7. When worrying about not being ready:



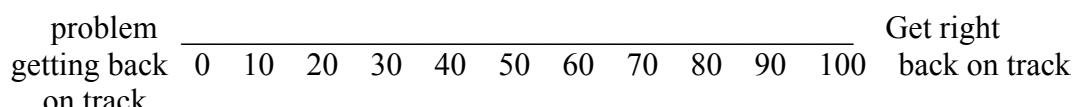
8. When worrying about losing:



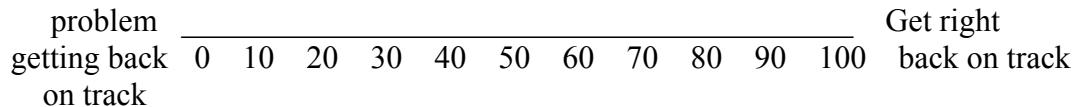
9. When worrying about getting hurt/being injured



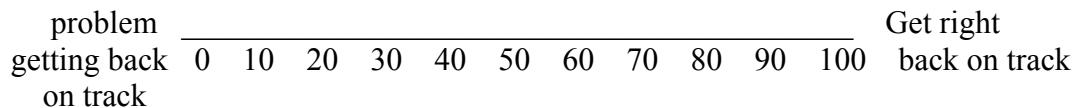
10. When worrying about teammates:



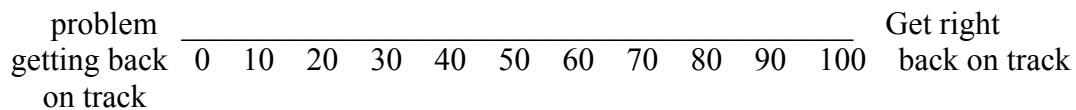
11. When worrying about officials and judges:



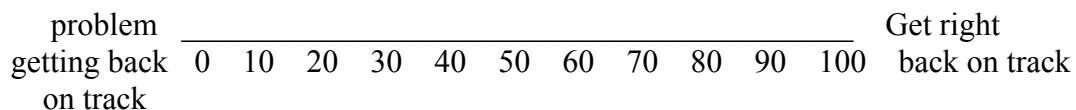
12. When worrying about friends/family:



13. When worrying about the media:

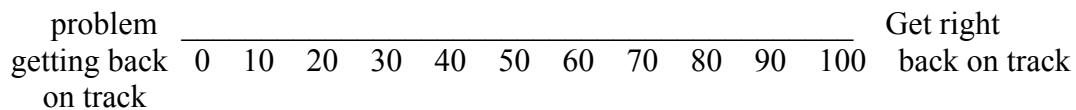


14. When worrying about coach's comments or behaviour:

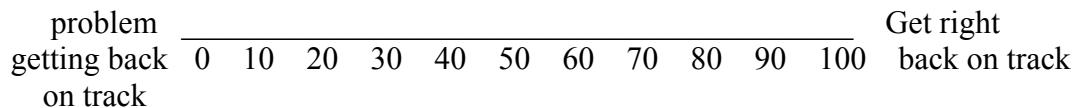


- Identify and rate other distractors:

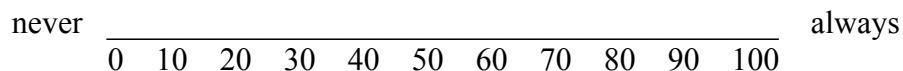
Distractor #1 is: \_\_\_\_\_



Distractor #2 is: \_\_\_\_\_



15. Many competitions and tournaments extend over several days, during which time you may have to compete in several different events, heats, or games. Do you know how to take a mental break **between each event** throughout the tournament?



A) What do you do to take a mental break between events of an extended competition or tournament?

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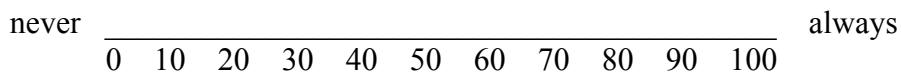


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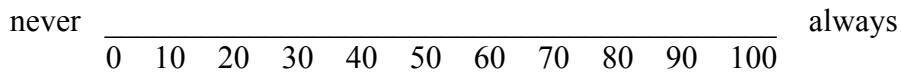
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16. Are you successful at allowing yourself to take a mental break when it might be helpful?

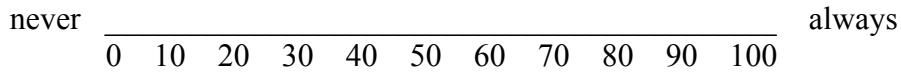


### **III. COMPETITION FOCUS**

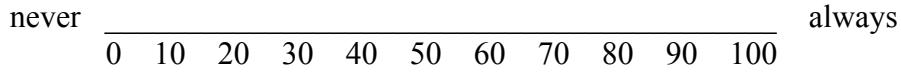
17. At the competition site do you remind yourself of your strengths?



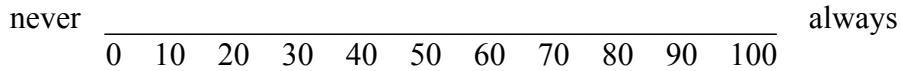
18. Do you look for advantages or opportunities in every situation you face?



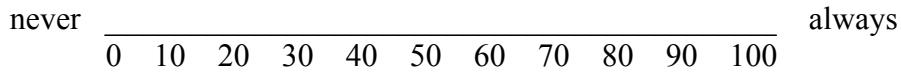
19. Do you find reasons to believe in yourself? (Why you can do well.)



20. If you are concerned about problems at home, school or work, are you able to shift gears and leave those concerns behind for the duration of the competition?



21. Do you know what kind of focus allows you to perform best during competitions?



A) What is your best competition focus?

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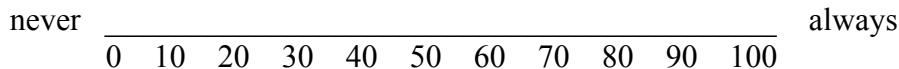


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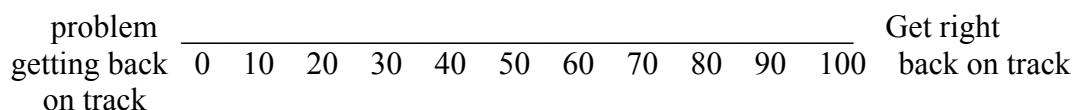
22. When executing moves, skills, routines or plays in competition, are you able to maintain the “best” focus?



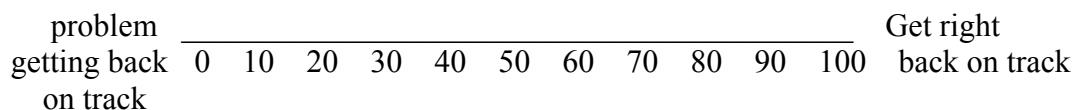
#### **IV COMPETITION DISTRACTION CONTROL**

During competitions there are a number of things that can distract athletes or take them away from their best focus. For each of the situations listed below, how successful are you at getting back on track, into your positive performance focus?

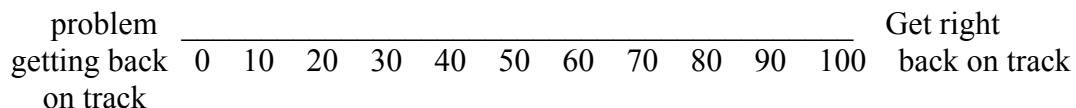
23. After making an error:



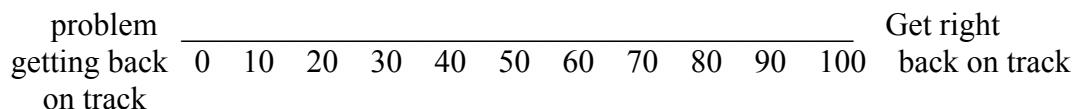
24. Poor officiating:



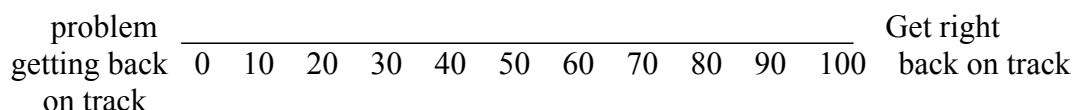
25. Opponents outstanding performance:



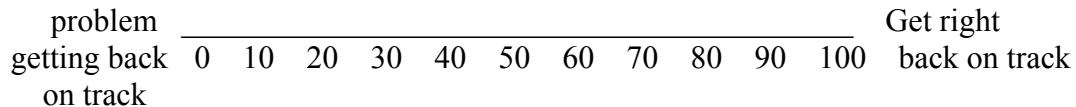
26. Not feeling 100% (not in ideal performance state):



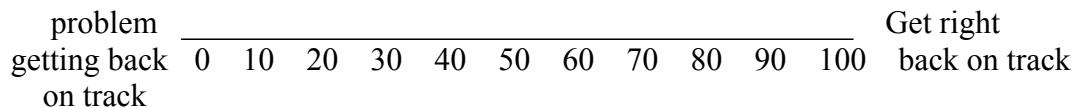
27. Negative thoughts:



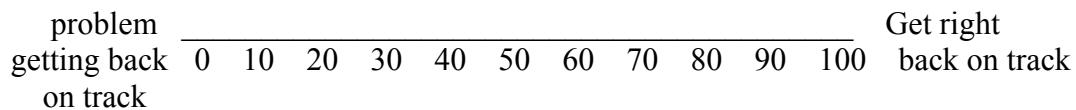
28. Coach's comments and/or behaviour:



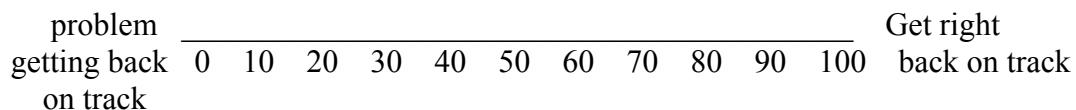
29. Environmental conditions (e.g., the weather or facility):



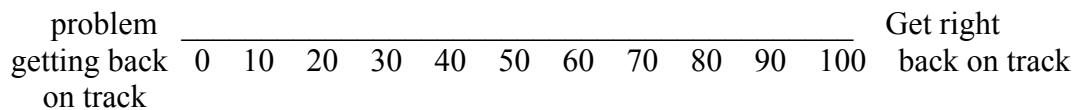
30. Change in momentum:



31. Being evaluated:

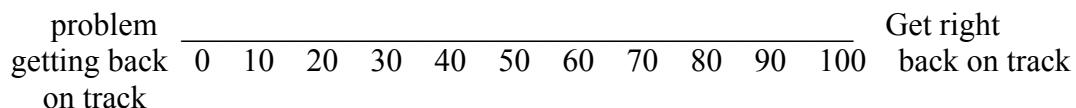


32. Thinking about the outcome:

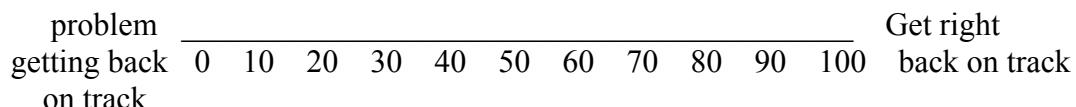


- Identify and rate other distractors:

Distractor #1 is: \_\_\_\_\_

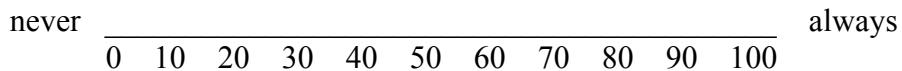


Distractor #2 is: \_\_\_\_\_

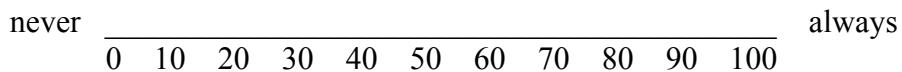


## V. POST COMPETITION LEARNING

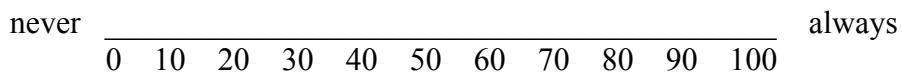
33. After competition/games or performances are you successful at drawing out lessons that can help you for next time?



34. Do you act on these lessons you draw out at your next practice or competition?



35. After competition/games are you successful at shifting gears and leaving today's competition behind, especially if things didn't go well?



A) What works best for you to shift focus away from thinking about the competition?

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- This concludes the mental training exercise for quality performance. In the space below indicate what you feel are your strengths that can help you perform well in competitions.

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- Where do you think you need most work to improve the level or consistency of your performance in competitions?

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- What are you going to do to prepare yourself to perform your best?

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## Interview with Chris Hadfield, Canadian Astronaut

**Chris Hadfield**, NASA Astronaut and Terry **Orlick** Interviewer,  
University of Ottawa

In 1995, Major Chris Hadfield flew aboard the space shuttle *Atlantis*. He was the first Canadian to fly as a mission specialist, to pilot a docking with the Russian space station and to operate the Canadarm in space. He has worked in Houston as a CAPCOM, the voice-link between astronauts in the shuttle and mission control on the ground, and is currently preparing for a mission which involves extra-vehicular activities in building the Space Station.

### Abstract

Chris Hadfield is one of the most impressive performers I have ever had the pleasure to meet or interview. The quality and detail of his mental preparation for training and space flight is nothing short of amazing. In this interview he discusses his extensive use of mental imagery, his ability to control distractions and connect totally with his task, and how he acts on his commitment to ongoing learning. There are many insights and practical suggestions raised in this interview that can be applied to virtually any mission or pursuit.

**Terry:** From your experience, what do you think is required to excel?

**Chris:** In order to get to the level where people are considering that you have excelled, you need to clearly understand where it is that you are heading and really have a good feel for what it is that you are trying to accomplish. If you have a shotgun of things that you are trying to do it is very difficult to excel at all of them - maybe you will have one or two highlights or mountain peaks. To excel you need to focus on what it is you want to do. In my case I need to visualize several routes to get there whether it is climbing a mountain or winning a particular race or succeeding on a certain space flight or getting something built in orbit...something that has never been done. You need to visualize all the different ways that you can get there easily and then visualize the ways that you can just barely get there when things are breaking. Once you have figured out what it is you are

trying to do and you really have a clear picture of that, you develop a clear picture of what you can do for all the possible things that can go wrong. Then of course the hard part is sorting out your training and how you're going to realistically prepare for all of that. How are you going to get yourself ready so that when the moment comes you're ready to come out of the shoot and do it?

It's very much a long term focus issue, keeping that long term goal that you've defined in mind, thinking about the route and how you're doing on that road, and then keeping yourself moving incrementally along. It can be something you want to do in an hour, like one hour from now I want to do this ... and this how I am going to do it. Or it can be something for your whole life, I want to accomplish this by the time I'm 90 and these are the things I'm going to do to get there. The most important thing in the training is to have representative, environ-

mentally situated training, enough training that when you get to the real test that you have seen something that was close enough or you have been able to extrapolate to it so that it becomes familiar. So you aren't relying on chance when it really comes down to it, so that it becomes familiar and you can just focus down and get this job done and it's within the scope of what you've seen before.

**Terry:** What is it that keeps you going after those goals over the long term?

**Chris:** It is very much a retention of purpose throughout your entire life. There will be insurmountable setbacks if you set yourself any sort of difficult goal. You will get to a stage where the whole horizon is black and you don't see anyway through. That happened several times to me. I chose as a kid to be an astronaut when I grew up. It was a black horizon from the beginning, there was no way - it was impossible at the time. But things always change, given time. There are always new possibilities. The important part in achieving, or even coming close to what you dream of doing, is a retention of purpose. Everyday you're going to have a choice to go a little bit closer to where you want to get, every single day. Then there will be some break points in your life where you really fundamentally choose whether you're going to head that direction or not. And if you don't make that choice, if you don't change direction you will end up where you're headed. Guaranteed. So you need to fundamentally choose which direction you want to go and start heading that way and maybe you'll get to where you want to go.

I think the purpose that I chose for myself, the goal I wanted to achieve as an adult, I internalized deliberately at 9 years old - I am by no means a robot that headed that way, but I always had choices and I thought,

"Well someday, maybe I'll get to be an astronaut and if I am, I really should know about this, I better study this, I should do this". I was just lucky enough that when I got to the point in my life where I was qualified, where if the opportunity was going to come along, I'd gotten myself to the level where, "Hey, this body and this brain, this is about all I can offer". I was lucky enough that at that stage in my life the opportunity arose and I was in a position to take advantage of it. So I think that basic retention of purpose through a whole life, not only gets you to your goal but makes life more interesting and fulfilling because you're headed some direction that you like. And your life loses its random and therefore unfulfilling nature. I really enjoy it.

**Terry:** You mentioned that during your last space flight nothing went exactly as planned, yet everything had been prepared for. Could you talk a little about that?

**Chris:** Yes, everything that we had thought about prepared us for the flight. And we were audacious enough to make-up a plan, minute by minute, of how the whole flight was going to go, down to 5 minute increments through the whole 8 days, of what we expected to be doing every minute. We call it a flight plan. Of course nothing went exactly according to that plan but everything was somewhere within the scope of things we had seen while we were training. That is what you need in that preparation phase. As an example, in docking with the Russian space station, timing was critical, and yet when we got to 25 feet away we had three different sensors and we were sure two of them would agree. Well one of our sensors said 20 feet, one 25 feet, and one 32 feet, and depending on which one was right would make all the difference as to whether we could dock on time or not. So there we were in a situation that we had never directly practiced for, we

had never assumed that the sensors would all disagree and so we had to go with the only one that couldn't lie to us, which was really visual, eyeball - "The docking module is 15 feet long so that's another 8 feet above so okay, we're about 23 feet away, go with that". You know, go back to the absolute basics of what you've seen in training and what you've practiced for as a contingency. And we ended up hitting it 3 seconds early, basically right on time having had enough depth of training that you've covered the whole scope so that you could do the job with the real time deltas when you had to get there.

**Terry:** So what would be the price of error in that situation?

**Chris:** If we had been wrong, if we had guessed wrong, if we hadn't been prepared for it, we would have had to back away from the Russian space station for at least 24 hours because the world is turning underneath you and you have to wait until Russia gets underneath you again. So we would have had to wait 24 hours which means you are using up consumables, you're using up fuel, you're running the risk of something breaking, you're analyzing what was wrong, "What's going to be better next time?" You know you are going to have the same problem. So we ran a risk of total mission failure based on that. You are always having to work around those things one domino at a time to get the whole thing through.

**Terry:** In terms of preparing for that docking about how many times would you have actually simulated it or run it through your head?

**Chris:** An actual full crew simulation of the docking I would guess we did 250 times. And then myself simulating stages of it, or complete bits of it in my head, I couldn't

count the number of times. I sat out on my deck at home at night, and thought through it and practiced with it. In the simulator we're using a big hand held laser, of course in the simulator a hand held laser doesn't have anything to range off of. I used my workbook which is about the size of a hand held laser, and every time I used that laser I would physically hold that up and count the 5, because that's how long it's going to take to do a laser mark, to make it as realistic as possible: to block the commander's view of what was going on, to simulate the time it takes to actually get a mark, to miss some of the marks. You know just trying to put in as many realistic obstacles as possible so that when we did it for real we would go, "Yeah, that's just what we expected. It was easy". Because that's what we had planned.

**Terry:** When you are doing that kind of preparation in your mind what do you experience? Can you describe what it is? What is the detail? Do you feel things in your body?

**Chris:** I learn things better if I understand how I am physically going to interact with them. When I want to learn about the shuttle's thruster system I have an actual picture of the thruster control panel in what I call my brain book. And I work through that. I will research every single thing that switch does; how it effects the whole system, how it all works, interacts, so that as a straight tangible reminder when I'm reaching for that switch and touch it, the actual physical action is a reminder to me of all of the study and all the background and everything that led up to what that switch does. And that's true for all of the switches in the cockpit. I spend time thinking through a checklist or a cue card as well. I have taken one of those cue cards and written a thousand notes around the outside so that when I get to the actual cue card there's a whole pyramid of information below each

thing that is there, that I've tried to spend the time preparing for beforehand. So the few cues that you're actually interacting with real time are all based on a much wider base or depth of information that you might have from before.

**Terry:** So is your brain book those notes, or is it in your head?

**Chris:** My brain book is... I will try to condense everything that I need to know about a certain idea onto one piece of paper, like a cheat sheet basically. I have an entire book of cheat sheets about my next flight, and it allows me a couple things. It allows me to coalesce my thoughts. By going through the process of making up one of those sheets you tend to drive home in your mind how you're going to remember this stuff. When I am having a simulation the next day it also allows me to have a one page reference for all of the key stuff. And as an added benefit, we're allowed to take one small book up to space with us and I have this thing photocopied and put on the flame proof paper and I bring these notes up with me to space. But I didn't check those notes even once on my last flight because the act of developing them, studying them and then using them in training is enough to internalize it so that I don't need them real time although they're there as a security blanket.

**Terry:** So when you're writing and reading, or referring to those note or checklists, does that create images or actions in your mind?

**Chris:** Definitely, yes. I think through the whole thing in a sequence of actions and responses. I'm always trying to understand completely how these things affect other things. You know, "When we do this, what is really happening? What effect is it going to have on other systems?" When we did the second Hubble space telescope repair we

put a new airlock on the shuttle. Of course the astronauts get into the airlock, close the hatch, and then they have to vent the air. Well, the new airlock had a new air vent and people had thought about various things but nobody had thought, "What happens when you vent this air? Is it going to go up and impinge on the big solar rays of Hubble?" And when they released that air the solar rays got caught in the rushing air and spun around 1 1/2 times and we were lucky not to rip it right off of Hubble. There was something, where we had almost thought through it far enough, but not quite. And we came so close to wrecking the Hubble telescope because of one tiny missed detail of "Exactly what is the angle of that outrushing air?" So our whole job as the crew on board is to think through and visualize the real world, three-dimensional effects of all of these tiny little pieces and view them as a whole. Nobody looks at it like astronauts do, because we're the people there, we're not just the reaction control system expert or the docking system expert. We are the people who see the whole thing as a piece and so the responsibility really falls to us to amalgamate it and think it through as a one piece unit, or as one sequence of events.

**Terry:** When you run these things through your mind so many times do you end up feeling like you can do them without thought? Do they become automatic or instinctual most of the time?

**Chris:** If at all possible I would like to make it instinctive. When I'm doing a complicated flight in an airplane like an F-18 I will actually get a map of the ground and I will draw, even though it's a flight and I'm never going to see the ground, I will draw a map with a line on the map where I'm going to go, which navigation aids I'll be able to tune in. I think about what that means for switch throws in the cockpit,

where I'm going to go here, the type of things I'm going to need. I'll get out my checklist; I'll have the pages marked. Just so that when the real moment comes it's something you've done before. In my business you can't have too much detail in preparation. The only mistake is when you don't have quite enough and you've missed one key little factor that can make or break the whole experience. So we are real detail people, and we have to be.

**Terry:** Can you tell me a little about preparing for the William Tell fighter pilot competition that you won before becoming an astronaut?

**Chris:** We had a minimum time to intercept as part of that competition. You're simulating sitting on the ground on alert and someone is coming into your airspace and you have to minimum time to get up, fly your airplane, get up on their wing and identify it. They have markings on their airplane, so you have to read down some colored patch or something, and identify the type of airplane. So you are sitting on the ground cold and you have to get your airplane going, get your systems running in minimum time. So it's a race and detail makes a huge difference there. We looked into all of them, working every detail. How can we shave 10 seconds off getting the airplane going, off getting the inertial navigation system running? How can we taxi out to take-off the quickest? How can we perform the jet so that you go from a dead stop on the runway to supersonic at 35,000 feet? What's the quickest you can get up there, really? What method do you follow? Let's say my lead's radar is bad. OK, how are we going to work this if lead's radar is bad, or my radar is bad? We address every possible detail coming through this whole thing so that we can get to a fairly clearly defined task, given a bunch of variables that we may not be able

to control. It is very similar to what we do in space now.

**Terry:** What would you say is the main benefit of detailed preparation?

**Chris:** The main benefit of detailed preparation is success; that's the short answer. The long answer, the main benefit of detailed preparation is confidence and lack of fear. I'm always fearful when I haven't had time to prepare or when I don't think I know what's going to happen, or I have no ability to control what's going to happen. So I try and keep myself out of those situations. One way to do that is to study the heck out of something beforehand and to do everything you can to get yourself ready. Especially when it's a clearly defined task, why not? Don't leave it to chance if you don't have to. If you want to win at something then put the time in beforehand so that when it really happens, you're confident. You're not scared of it, you're not worried about it, you're just ready. Probably the biggest indicator of readiness for space flight was that the overriding emotion on launch is not one of fear or nervousness, it's one of relief. Because finally, after all that preparation, and everybody being at the Cape and ready for you to go, you finally are actually going. And when those engines light, you look down and you've got 3 good engines and the solids light and you're leaving the pad, it's like, "All right, we're going at last - relief". That's the emotion, not the fact that you're sitting on a million pounds of explosive or that you've got 7 million pounds of thrust. Those things are not what are shaping your day at that point. You are prepared for that. That's the situation I would really like to be in for all watersheds in my life.

**Terry:** Can you tell me a little about your views on the importance of focusing on the

essentials and letting non-essentials go when performing different tasks?

**Chris:** Not only is preparation important in studying details but you need to understand what you can ignore. When you're flying an airplane at 500 miles an hour there are all kinds of things that don't matter, and there are a few things that really, really matter. What's in front of you for the next kilometer really matters because you're going fast and in a few seconds you're going to be there. It doesn't matter what's going on with your car at home or what just happened 30 seconds ago, or whatever. What really matters is what is going to have the biggest impact on you in the next 30 seconds. And in an airplane things happen quickly, especially in a high performance airplane when you're flying down low or flying with another aircraft. So you need to completely compartmentalize, and just be ready to disregard things that don't matter and worry about them later. Even though it may be life or death later, for now it doesn't matter and you can't pay attention to it. You need to focus on the immediate things in front of you that really matter.

When we docked with the Russian space station, of course it was very focused and a lot of people were working real hard especially with the problems we'd had in sorting out the real time ranging and such. We had a video camera running on the flight deck and I watched the video afterwards. All of us are working hard, scrambling, and we get ourselves docked and then we're running the mechanism and no one says a word. And it's probably 5 minutes later that one of the guys turns around and says, "Hey, we did it!" Five minutes! Because we were so focused on task specific things that absolutely had to be done or it wouldn't succeed, that there wasn't time to celebrate the forest. We were dealing with trees, right there, and that's all we had time to deal with.

Later on you could start to realize the significance and the bigger impacts and all the rest of it. There are times when if you don't focus right down to the critical items right there, you don't give yourself a chance. You have to learn to put things into their boxes and drawers and compartments to be able to succeed.

**Terry:** How do you think you've learned to do that? How do people learn to get that kind of focus - let's say people who aren't there yet - how do you take those steps?

**Chris:** I think I learned it incrementally over my whole life. I was a downhill ski racer as a teenager and there's a lot of it in that. I grew up on a farm working with large machinery and when you're moving something along that's big and heavy you need to be right with your machine, right there. It's an extension of your body. In downhill racing you have the next 30 seconds, either you're getting a medal or you're falling and breaking your leg, and you've got 30 seconds to do it right. So that's a good reason to focus. For developmental purposes I think you can do it on a very small scale, focus for this length of time to get something done that's difficult to do. Challenge yourself to do something that you can just barely do and then learn how to focus on it until you can do it well. Then slowly expand that. Start flying a glider and then fly a piper cub and then something a little bigger and a twin and then a small jet, and then a big jet, and then a space shuttle. That's all the same idea of training yourself and developing the skill set and the confidence and the ability to focus and strip away irrelevant things. No matter what your field of study is that same idea applies.

**Terry:** Can you tell me what you do in simulations and how you entrench those lessons through debriefing?

**Chris:** We simulate a tremendous amount in preparation for space flight and we try and make our simulations and our simulators as realistic as possible. We work very hard to set up a scenario that is realistic, that is credible so the people in the shuttle simulator feel like they're in a shuttle, the people in mission control feel like they're controlling a real shuttle. So there's a lot of air of realism to it. Then we will set up the malfunctions so that you drive the system to its edges, try and get into a grey area, "What if this failed and this failed? Do our rules cover us? Would we know what to do?" And so we try and drive ourselves to the edge, and hopefully during the sim we'll get into a situation that we've never been in before and figure our way through it.

That's all good real time, but only a few people in that room will benefit for a short-term unless you somehow entrench the lessons that come out of it. The way to do that is in a debriefing. We debrief in exhaustive detail. The way it runs is the person who was running the simulation, the flight director or the shuttle commander, has kept major event notes through the whole exercise, whether it's 4 hours or an 8 hour simulation or a 36 hour simulation, whatever. They will have hit the highlights from all the different things that they think are unseen things in the past, or points that need to be reemphasized or new things for the shuttle. They will hit every single major event during the simulation and what went right, thank the people that did it right, or if there was a new way of doing something that worked better and then definitely get into the details of what went wrong or what was inefficient. They will take it through the whole thing asking pointed questions of every expert that was involved and it's a cast of 100 people involved with a simulation. Then they give the microphone to every single person, everyone has a chance to pipe

up, how they saw it from their console, what they got out of it, what interaction they had with other consoles. Then actions are given to everybody, basically, "OK, take an action to put that into the flight rules. Put that into the training from now on. Let's expand our collective brain power here. Let's learn from this thing".

On a 4 hour simulation you can have a 1 hour debrief, typical 8 hour simulation you debrief for an hour and a half, on a 9 day space flight you will have a month of debriefing afterwards. Everyday. You just debrief on everything: How was the food? What was good? What was bad? What kept? What didn't? What did you like? What did you throw away? How was the packaging? It sounds trivial but it makes a big difference when you're building a space station. You know, "What is efficient?" The reaction control system people, the guys that gave you the clothes, the flight dynamics officer, all those people want a complete debrief so that they can do it better next time. We've gotten to the point now where we've flown the shuttle 91 times and we've made it look effortless. Whereas 91 times for any complicated vehicle that is still in its infancy is quite an accomplishment. That is purely through accurate simulation and then incredible attention to detail in learning every lesson you can from every effort and rolling that back into the training flow so that the next one is even better or optimized or every crew benefits from experiences they didn't have to have personally.

**Terry:** Do they take those lessons and act on them immediately, for another crew that is preparing?

**Chris:** Yes, we implement things as quickly as possible. If it's something that is critical, we'll turn it around in a day, put it in the simulator, run it and come out with the change the next day. We'll do that in

support of a flight in progress if something develops for a shuttle that's up there, we will find the problem, we'll run off and simulate it all night, and come up with new procedures, verify the procedures, have a bunch of people look at them and send them up in the shuttle the next day; a whole new set of procedures based on something that's developed that we've had a chance to simulate and enact real time. Yes, sometimes we can turn it around right away. Some things you want to run through a peer review board because it may seem like a great idea in this circumstance but you may need a bigger picture than the group that was there for the debrief. So we have a flight rules control board that meet every couple weeks and they go through all the new proposals to changes for flight rules that have come through and gotten everybody to weigh in on them. And you have joint rules where you have the Russians and the Americans and everybody all working together to come up with a new set of flight rules.

**Terry:** Can you describe what space flight is like in comparison to your expectations?

**Chris:** Space flight is one of the few things that is better than you dreamed it would be. I don't say that to be self-serving, it really truly was. I just couldn't believe how magnificent and fulfilling the whole thing was. Of course being an engineer fighter pilot kind of guy I tried to figure out, "Why? Why did it have this effect?" When you go see the Grand Canyon you say, "There's the Grand Canyon. It's beautiful but it's sort of like I expected". Why was this better? I think it was a combination of things. One, it is something that you've been dreaming of doing for a long time and you're actually finally getting to do it. So there is that feeling like going to Disneyland or something, it is like, "OK, we're actually doing this thing...cool". So there's that

whole anticipation part. Then when you get there you have a continuous string of successful completion of steps. So you have a building momentum of success and pride of, "Hey, we're getting this thing done, this is actually working". So you have this upwelling of confidence as the mission is going on.

But on top of that there are a couple of things that you just can't prepare for that are delightful. And that is you are weightless the whole time, so someone has just taken away the rules. They've put you on the best ride at the fair and it's permanent - you can float weightless, you can just touch off the wall and tumble and you can float someone your book or bounce a Smartie off the roof into your mouth. It's just a constant delight; it's just a beautiful change of rules. Then coupled with the whole thing is every time you go over to the window the world is rolling by underneath, the whole planet, every place you've ever read about. You look down and there's Lake Victoria, there's the Nile all the way to the Mediterranean. People gave their lives trying to find the source of the Nile and you can see it out your window, you look down and see the Himalayas as a place. And every place you've ever read about or dreamt about is just rolling by underneath you. So it's just an overwhelming experience of expectation and success and stimulation and change of rules, so that you just come back addicted. This is such an amazing experience and you want to tell people about it. You want to go back to space yourself of course, and you want to try to contribute to a situation where more people can come up and break the bonds that are holding all of us here sitting in our chairs, and go and see what is possible. It's just an amazing experience.

## Editorial Statement

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The focus of The Journal of Excellence is the sharing of knowledge and wisdom that is relevant to the lived experience of excellence in any domain (e.g., sports, performing arts, health, workplace, education, joyful living). Qualitative research of an applied nature, such as case studies, interventions, interview studies and narrative studies are welcomed. The journal also publishes personal accounts, short commentaries, interviews, poems or stories that offer insights into the nature of high level challenges and the mental links to excellence. Reviews of books, videos, films or conferences as well as notices of upcoming conferences and events will be considered.

The Journal of Excellence is looking forward to sharing your ideas with others committed to enhancing excellence in all domains.

*Louise Zitzelsberger, PhD*  
**Editor**

## Instructions to Contributors

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Submissions to the Journal of Excellence should be in English only. In preparing manuscripts for publication, authors should follow the guidelines in the *Publication Manual of the American Psychological Association (4th ed., 1994)*. Please submit one copy of your manuscript in Microsoft Word and forward it as an attachment to: [Journal@zxcel.com](mailto:Journal@zxcel.com)

All submissions must be preceded by an abstract not exceeding 150 words. All figures and photographs should be submitted on-line in Tiff format (600 dpi.). Tables should be included in the Word document. A short biographical sketch describing each author area(s) of expertise, performance or research interests and affiliation(s) should accompany the article.

The Journal of Excellence is a refereed journal using a blind review process. The editor and two other reviewers read manuscripts. The review process is completed as quickly as possible.

The Editor of the Journal of Excellence can be reached through:

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## About the International Society for Mental Training and Excellence (ISMTE)

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### Introduction

Founded in 1989, the focus of the ISMTE is excellence in performance and excellence in living. The founding President, Lars Eric Unestahl, organized the First World Congress in Örebro, Sweden, in 1991. Terry Orlick became the second President in 1991, hosted the 1995 World Congress in Ottawa, Canada and initiated the Journal of Excellence. Keith Henschen became the third President in 1998. Keith and Rich Gordin hosted the 1999 World Congress on Mental Training and Excellence, in Salt Lake City, USA.

The next World Congress on Mental Training and Excellence will be hosted by Pavel Bundzen in 2003, in St.Petersburg, Russia.

### Vision

Education and Training for better people, better performers and a better world.

### Mission

- Promote Excellence in Sport, The Performing Arts, Education, Work, Health and Life.
- Create, collect, produce and share valuable, practical resources and educational opportunities for those in pursuit of excellence, and those assisting others in pursuit of excellence.
- Serve as a vehicle for the on-going advancement of knowledge, education, interventions and consulting in Mental Training and Excellence.

### Focus

- Excellence within multiple pursuits: Sport, Performing Arts, Workplace, Health, Education and Joyful Living.
- Committed to a truly applied orientation with practical research and experiential knowledge as a base.
- Focused on what is relevant in the real world of application to Quality Performance and Quality Living.
- International in orientation and scope, open to learning from people in different fields and different cultures who are committed to excellence and the value of shared wisdom.

### Mental Training

Mental Training is centered on the systematic training and nurturing of mental skills and perspectives that are linked to performance excellence and quality living. Mental Training embraces teaching, coaching and nurturing positive perspectives, positive planning, focusing skills, refocusing skills, imagery skills, goal setting skills, teamwork, collaboration, commitment, confidence, mental and emotional preparation, distraction control skills, stress control skills, positive mind-body connections, balanced excellence and ongoing learning.

## **Initiatives Sponsored by the ISMTE**

### **Journal of Excellence**

ISMTE sponsors the publication of the on-line Journal of Excellence, which is devoted to nurturing excellence in all human endeavors – excellence in performance and excellence in living.

The biannual internet based Journal of Excellence is applied in orientation, relevant in content, and wide-ranging in application to a variety of performance disciplines and real world applications.

### ***Certification as a PRO Mental Training Consultant***

ISMTE offers an Internet-based Advanced Program on Mental Training and Excellence (PRO). The program consists of 21 credits leading to certification as a Mental Training Consultant. For more information, visit our web site at: [www.ismte.com](http://www.ismte.com)

### ***Mental Training Forums, Symposia and Workshops***

ISMTE offers workshops, forums and symposiums for performers, coaches and consultants. Participants share their experiences and gain from collective wisdom.

### **The World Congress**

ISMTE hosts a World Congress on Mental Training and Excellence every 4 years. The first was held in Sweden in 1991, the 2<sup>nd</sup> in Canada in 1995, the 3<sup>rd</sup> in the USA in 1999 and the 4<sup>th</sup> will be held in St. Petersburg, Russia in 2003.

The World Congress provides a forum for people from around the world to share their knowledge and practical insights, related to Mental Training and Excellence. Many applied presentations and practical workshops are offered by leaders in this field.

When you subscribe to the Journal of Excellence you automatically become a member of ISMTE. The cost is \$34.95 US / \$44.95 Cdn per year. For further information email: [ismte@rems.net](mailto:ismte@rems.net) or fax: 1-819 827 2652.

Members receive two new on-line issues of the Journal of Excellence, as well as all back issues, and information on the World Congress and mental training courses.