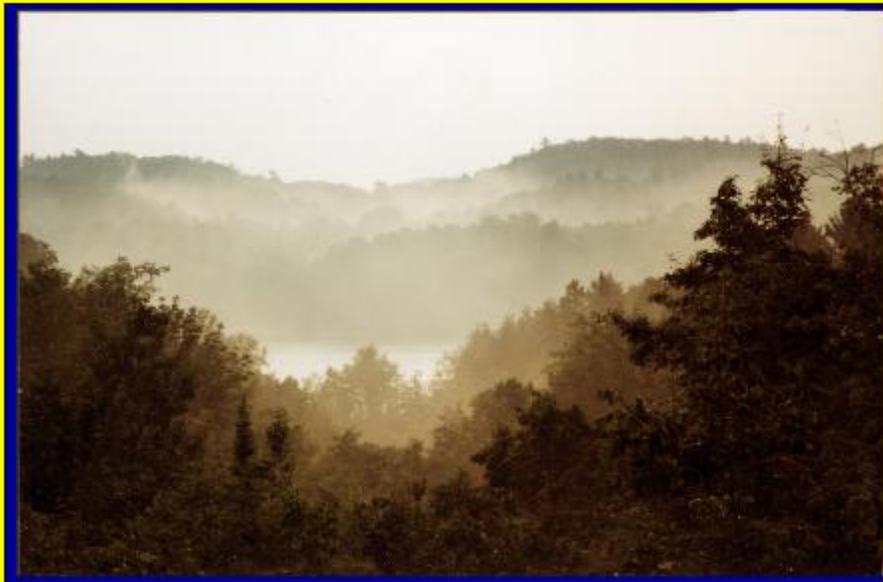


Journal of Excellence

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



Issue No. 6

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Mission of the Journal of Excellence

Terry Orlick - University of Ottawa

My mission in initiating the birth of The Journal of Excellence was to fill some important gaps in our knowledge and in our lives that are essential to the successful 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 goal 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, and only journal, which has **EXCELLENCE** in multiple domains as its sole focus. Providing people with insights and strategies for being 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. 6

Welcome to Issue 6 of the Journal of Excellence.

The first two articles in this Issue shed light on excelling within the unique performance challenges of the Olympic Games. Terry Orlick shares what he feels is required to excel within the Olympic context. Penny Werthner, another experienced Olympic sport psychology consultant shares insights gained from in-depth interviews with Olympic athletes on the role of effective concentration in high performance sport.

In the remaining articles in this Issue, Robert Schinke and Chris Peterson expand on the work of Seligman to provide insights on the role of optimism skills with high performance athletes and others engaged in high level performance. John Pates and John Palmi present the results of an interesting study on the potential role of hypnosis on attaining flow states and improved performance. Hans Olsson presents some very positive and interesting results on the use of mental training for patients experiencing high levels of pain. Laura Farres shares a very moving case study of a National team athlete trying to cope effectively with a very negative National team coach. Penny Werthner shares a thought provoking interview conducted with Steve Giles, a former world champion and Olympic medallist in canoeing.

To conclude this issue Emma Stodel and Laura Farres, two promising young professionals in the sport psychology field, share views and insights on the delivery mental skills over the web.

Terry Orlick
Editor in Chief

Excelling In the Olympic Context

Terry Orlick, Canada

Terry Orlick is a writer, researcher, performance and life enhancement consultant, and sport psychology professor in the School of Human Kinetics at the University of Ottawa, Canada.

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Abstract

I began working with my first Olympic athlete as a mental skills/performance enhancement consultant in 1973 and have had the good fortune of continuing to work with Olympic athletes and coaches through every summer and winter Olympic Games since that time. During my first 7 years of Olympic consulting I worked with a number of individual athletes representing different summer and winter sports. For the next 15 years I worked primarily with entire Olympic teams from a variety of individual and team sports. Some of that consulting continued for 12 to 14 consecutive years with both summer and winter Olympic teams. For the past 7 years, (through to the 2000 Sydney Summer Olympics, 2002 Salt Lake City Winter Olympics and leading into the Athens 2004 Summer Olympics), I returned to working with a limited number of individual athletes. Some of this more recent consulting work has been conducted almost exclusively over the Internet.

In this article I share some reflections on what I feel helps athletes and coaches excel within the Olympic context.

What are the greatest challenges you have faced in your life?

When you face challenges where the bar is raised, the stakes are higher, the scrutiny more diligent, the outcome more important than anything else you have ever done, up to that point in your life, you are essentially performing in an Olympic context.

As one seasoned professional NHL athlete said of his recent Olympic experience in Salt Lake City, “It doesn’t get any bigger than this”.

You have probably faced challenges in your life that felt very BIG, or overwhelming, or almost insurmountable at that time. How did you get through those challenges?

Ultimately, if you worked through those

challenges successfully, you probably did it by embracing a more positive vision or perspective, and by focusing on the step in front of you.

Few of us have actually experienced the enormous challenge of performing within an Olympic Games context, but most of us have had our Olympic moments. How well we handle those moments, and the extent to which we are able to embrace them, is often determined by two factors: how prepared we feel to accept those opportunities or challenges, and the extent to which we are able to remain positive and fully absorbed in the process of engaging ourselves in the experience or performance. Excelling in the Olympic context is almost entirely dependent on perspective and focus.

There are two main reasons we falter or fail to reach our goals in the Olympic context. One is that we fail to respect patterns that work for us. We do this by changing patterns that have worked well in the past, or by failing to change patterns that don't work. This results in sub optimal performance or performing below our capacity.

The second main reason for not reaching our goals in the Olympic context is failing to prepare ourselves to deal effectively with Olympic distractions. Every Olympic context is filled with distractions that can take us away from our best performance focus. Problems often surface when we allow ourselves to shift focus away from the performance process to concerns about outcomes and consequences of failure. Distractions in this context can take us places we don't want to go.

When facing challenges, sometimes we falter because we don't try hard enough but in the Olympic context, it is often that we try too hard. At the 2002 Olympics one of the world's best long track speed skaters, who was favored to win, faltered in both his Olympic races, finishing far off the podium. In a subsequent world cup race shortly after the Olympics he was back on track as a world leader. What was different? He returned familiar territory, and followed patterns of thinking, focusing and doing that work best for him... not too much and not too little. His beam was back on the ground.

The Olympic Context

When you enter the Olympic context, what do you think is the same and what is different from other events?

The performance demands at the Olympic Games are no different that the performance demands at any other major

competition, but everything that surrounds the performance is different.

Have you ever walked across a wooden beam that is lying on the ground, or along a train track? Imagine what it would be like to walk across that beam, or on that train track, if it was suspended between 2 buildings 100 stories in the air. The performance task is the same. If you can do it on the ground, why can't you do it with the beam suspended 100 stories in the air?

You probably can do it, if you believe you can and if you focus completely on putting one foot in front of the other. However, the consequences of failure are dramatically different. If you lose your balance or focus at that height, even momentarily, it can be a long hard fall.

This raising of the beam gives a little flavor of what some athletes might feel when walking in to perform within the Olympic context. The task is the same but the context and consequences are not.

When you have trained most of your life for this moment, and the expectations are high, and a billion people are watching, including everyone who is important to you, the consequences feel different.

When consequences are viewed as critically important, and you really want to perform well, it is essential that you focus fully on executing the task before you and on nothing else. This is not always an easy thing to do, unless you are supremely prepared mentally for that moment.

This requirement for full focus in critical situations does not only apply to performance excellence in sport. In heart surgery there are certain stitches that can kill a patient if they are not executed precisely in the

right spot, to right depth, within a short time frame. In space flight there are certain maneuvers that must be executed within a limited time frame, precisely as rehearsed, or there is a risk of total mission failure. In major business transactions, one final critical presentation, interaction or negotiation can make the difference between winning or losing a contract worth hundreds of millions or billions of dollars. These are all human performance situations where outcomes count, and the clarity of full focus is required for success. However, sport is the only performance arena where you have the additional element of having millions or billions of people watching your performance unfold, both live on site and on television.

Although the performance demands at the Olympic Games are basically the same as for any world cup event, the expectations, demands, media coverage and overall hype surrounding the Olympic event are dramatically heightened. In this respect, the Olympic environment is different from any other sporting event, including high profile professional championships.

In some sports, the hopes and dreams of their home nations, and sponsors, ride on the backs of these athletes. For example, at the 2002 Winter Olympics, when the powerful Swedish ice hockey team was unexpectedly eliminated after a very strong showing in the preliminary round, the Swedish media tore into the players, and described their loss as one of the most devastating events in Swedish history. On the other hand, Canadians were ecstatic when Team Canada won the gold medal after a poor showing in the preliminary round. More Canadians watched that gold medal game than any other televised event in the history of Canadian television (estimated at about 15 million viewers).

The Olympic Games are among the biggest media events in the history of the world and each Olympics seems to get a little larger.

At the 2000 Summer Olympics in Sydney, over 10,000 of the world's best athletes gathered together in the Athlete's Village for approximately three weeks. Over 12,000 accredited media people were also in attendance with the sole purpose of beaming this event to billions of interested people all over the world. Thousands of security personnel secured the Village and other venues to ensure the athletes' safety.

At the 2002 Winter Olympics in Salt Lake City, over 3 billion people around the world watched the opening ceremonies. Two thousand and five hundred of the world's best winter sport athletes and over 15,000 security personnel were in attendance (including police, military & undercover security agents).

In the wake of the September 11th terrorist attacks on the United States, the presence of increased military security was evident in Salt Lake City, both in the air and on the ground. The only previous Olympics where I witnessed such clear evidence of a military presence was at the 1988 Summer Olympics in Seoul, South Korea. In Salt Lake City, security concerns were taken up a notch, for example, all of our athletes were issued individual pagers so they could all be contacted instantly in case of an emergency. A large number of emergency response teams were ready to be activated in case the need arose.

It is important that athletes and spectators in attendance recognize that these safeguards have been put in place for everyone's safety.

The Athlete's Villages have restricted access, for people and vehicles, with checkpoint after checkpoint to gain entry. The process is similar to airport security, but

much more extensive. Inside the Village, athletes are privy to a huge variety of interesting options - large and small cafeterias offering free delights, some for 24 hours a day, interactive games rooms also open 24 hours a day, discos, movie theaters, stores, video rooms, exercise rooms, computer terminals, e-mail centers, live television feed from all venues, and the list goes on. There is entertainment offered virtually every day and night by some of the world's top performing artists, along with cultural events, and high profile celebrities, politicians, actors and former great athletes like Muhammad Ali coming to mingle with the Olympic athletes. It is a very unique and stimulating environment.

Other difference in the Olympic context, include the sheer volume of people, the size of the crowds, travel time to and from venues, heavy traffic, lots of delays, a reduction in training time, the number of activities going on around you, and the possibility of increasing levels of noise in some residences when athletes representing certain sports are finished competing, while others have not yet started.

These are some of the reasons that focusing and refocusing skills, and the ability to deal with distractions, are so critical for athletes and their performance within the Olympic context.

When you are well prepared for the kinds of realities that you are likely to face in the Olympic context, they are not a big deal. You can plan for them, focus through them, and move on to do what you came here to do.

The Athlete's Village would be a great place to visit just to have a good time, if only you didn't have to compete. But athletes and coaches come here to fulfill a lifetime

dream. In order to perform your best as a competitor, one of the first things you have to do, after being at least momentarily stunned by the environment, or in awe of the people, or feeling somewhat intimidated, is to take control. This can begin with a simple step-PLAN YOUR DAY! How much do you want to do in a day? How much can you do and still respect your primary reason for being here?

When do you want to get up, eat, sleep, practice, rest, take a break, or find some quiet time for yourself? When do you want to make yourself available for media interviews and when do you want to restrict media access? When do you want to eat together as a team, and when do you want to eat on your own, or with a friend, family member, coach or couple of teammates?

In one Olympic context, a group of team sport athletes who were accustomed to eating as a team, reported that never eating together as an entire team at the Olympics took away from their sense of team unity and hurt their performance. This highlights the importance of respecting familiar patterns that have worked well for you in the past. Decide what you want to do each day, as a human being, and as an athlete, that will help you feel your best and perform your best.

When athletes and coaches do not perform to their potential at the Olympic Games, it is not because the performance demands are different, but because they have not prepared to deal effectively with the Olympic environment, the Olympic expectations, and the many distractions surrounding their performance. Those who do perform to their capacity, plan their own best path, commit themselves stay positive through the many challenges, and focus fully on executing their own best performance.

Almost every athlete competing at the Olympics Games has dreamed of winning a medal, maybe even a gold medal. This dream can drive the intensity of your training and the quality of your preparation. It gives you a daily reason for doing the quality work and mental preparation required to perform your best in this arena. So continue to dream your big dream, as long as it is helping you.

Anything is possible if you prepare well, draw positive energy from the Olympic context, and channel your focus into connecting totally with your performance.

Once you are at the Olympics readying yourself to compete, your performance outcome will be almost entirely dependent upon how well you maintain **your** own best performance focus. The simple goal is to connect fully with your performance, your game plan, or race plan - to the exclusion of everything else. Give everything you have that day. Focus fully on each little step. Your on site performance focus should rivet you to executing your best performance – step-by-step. Nothing else matters.

Three Phases of Preparation

There are three distinct, but interrelated phases of preparing yourself to be your best in the Olympic context, 1) the preparation phase leading up to the event, 2) the on site familiarization phase, which includes adapting to the new environment and dealing with multiple distractions, and 3) the on site performance phase.

There is also an important post-performance transition phase, which allows you to draw out lessons and move on in a positive way.

The Preparation Phase

Within a relatively short period of time you

will be in the midst of the excitement of competing at the Olympic Games. To perform your best, you must plan your preparation, and rest, so that you are at your best when it is time to compete. This means respecting the training and rest patterns that work for best for you. It also means preparing yourself to remain positive and to focus fully on the right things at the right time. Your goal in the final preparation phase is to do everything you can to ensure that you will be at your best physically, mentally, technically, and emotionally - without feeling overloaded.

It is best to fine tune what already works for you, rather than trying to make major overhauls in your training or performance program. Remember what got you to where you are right now. Keep doing the good things that have worked for you and work on making the small refinements that will make you even better.

Focus on quality training and quality rest. Avoid over-training. Trying to do too much within a limited time frame is a common error in the Olympic year that has led to many disappointing performances. Go in rested and ready, knowing that you can give your absolute best. Being well rested and mentally ready for the demands, is a critical part of excelling in the Olympic context.

The Familiarization Phase

The more familiar you are with the Olympic environment, the more comfortable, relaxed or "normal" you will feel within it. You can begin by visiting the Olympic Web site which is normally www.olympics.org/ for continued updates on facilities, competition venues, the Village, and so on. Request updated information from your national sport federation or Olympic Association if you have specific questions, requests, or concerns.

It can be very helpful to talk with former athletes, coaches, and sport psychology consultants who have been to previous Games. Ask them for details about what to expect, their own experiences, and their suggestions for preparing to perform your best in the Olympic context. I have often asked former Olympic athletes to come in to share their Olympic experiences with teams that I have been working with. This helped them to better prepare them for the Olympic challenge. It has always been an empowering experience for everyone involved.

Every Olympic venue and spirit is unique in certain ways, but there are many common challenges, distractions and opportunities that athletes and coaches can prepare themselves for in advance.

If you have been to a previous Olympic Games, be sure to draw out the important lessons from those experiences. Carefully reflect on what went well and what you can do differently to be better prepared and more focused for the upcoming Olympics?

It is a definite advantage to go to your Olympic venue to train or compete sometime in the year leading up to the Olympic Games. This is a real possibility in many sports.

Many of the athletes I have worked with, who have had personal best performances and won medals at the Olympics, have visited, trained on, and/or competed on their Olympic course, or in their Olympic arena before doing it under the lights within in the real Olympic Games.

It made them feel more in control, more comfortable, and more like this was their place. It also helped when they were away from that venue preparing themselves mentally to perform their best on that specific

course, or in that particular performance arena.

Once you do arrive on site for the Olympic Games, it is important to gradually familiarize or re-familiarize yourself with the various areas of the Athlete's Village, your practice venue, competition venue, and the transport system. Make sure you know where everything is that is important to you. Once you are settled into the Olympic Village, it is most important to become familiar and comfortable with your competition venue. Even if you have trained or competed in that venue prior to the Olympics, check it out carefully. Some changes in the course or venue may have been done for the Olympics. This was certainly true for the triathlon event at the Sydney Olympics. Due to the extensive number of people lining the entire triathlon course, large cement barriers were erected which dramatically narrowed the course in some sections. This resulted in a number of crashes in the bicycle portion of the race. It is best to be completely aware and prepared for these changes, rather than in despair. The more prepared you are for everything that you will face, the better you will feel and the better you will perform.

When it has been possible to gain access to competition venues, many athletes I worked with found it helpful to go there when no one else was around, to get the feel of the place, to feel good in that place, to walk through or think through their game plan, or race plan, or trace the steps they wanted to follow on their competition day(s). Some moved from the warm-up area into the performance arena, or got into their starting position, or imagined themselves performing the way they wanted to perform while actually being right there in the place where they would do it.

Anything that helps you feel more ready, more relaxed, more confident, or more in

control can enhance the quality of your performance.

The On site Performance Phase

The task that lies before you at the Olympic Games is the same task that you have performed many times before. The most important part of performing to your capacity within this context is to respect the patterns that have worked best for you in the past – during the lead-up time, on site at your venue, just before you compete and during your performance. Follow your normal pre-competition routine, do your normal warm-up. Focus totally on executing your performance - step by step - shift by shift - section by section. Have a plan to stay on track, and to get back on track if you start to drift away. Follow that plan.

To perform your best in this context, follow the same patterns that freed you to perform your best in previous events. Rest well. Carry a positive perspective. Give the intensity that is required. Connect totally with your task. Focus on what is within your control.

Just do your job, execute your performance, which you have done many times before. Plan your own path. Follow your pre-competition routine. Focus on staying connected. Take it step by step. Give everything you possibly can that day - no regrets. You are not asking yourself to do anything unreasonable - only to perform like you are capable of performing.

Many athletes I worked with who performed to their capacity in the Olympic context found that responding to the following two questions in their final preparation phase helped strengthen their confidence and direct their Olympic focus:

1. **WHY I CAN.** List the reasons why

you can achieve your goals in this event.

2. **HOW I WILL.** Outline how you will achieve your goals in this event. What do you have to focus on to achieve your goals?

The Post-Performance Phase

If you prepare the way I have suggested, when the Olympics are over, you will leave knowing that you prepared as well as you possibly could, given the constraints of your life. You will know that you gave everything you could in your event(s) - no regrets. If you have done that, you have won a personal victory. In the end, there are only three medals in each event, and all of the top athletes in the world are going after them.

You achieved one of your lifetime dreams just by representing your country, your family and yourself at the Olympic Games. Regardless of whether you achieve another higher level Olympic dream, at the conclusion of challenges of this magnitude, it is important to put things back into perspective. You know you have tried to do your best within a very unique and challenging context, regardless of your performance outcome. You know that you have grown greatly as a person and a performer through this pursuit.

It is a great accomplishment just to be competing with the best in the world at the Olympic Games. Very few people in the world ever reach this high skill level that you have attained, in any field or endeavor. The people who know you are proud of you for what you have done, for your many accomplishments and for how you have represented your family, your community and your country over the years. Think about the wonderful experiences, opportunities and accomplishments that you have

gained from committing yourself to this pursuit. Think about the friends you have made, and the many lessons you have learned on this journey. These are memories that you will carry with you for the rest of your life.

Take some well deserved time to rest and recover before moving forward to the many other exciting challenges that lie ahead.

Coaching Support

It is always an asset to have the support of great coaches in the preparation phase, familiarization phase, on site performance phase and post performance phase.

The truly great coaches I have worked with help athletes to continue to love doing what they are doing, and therein make excellence a realistic goal and the journey enjoyable.

Great coaches are genuinely committed to their athletes, and to doing what is best for them. They are also secure enough within themselves to respect and listen to the people they work with. They value input and act on good input. They listen to their athletes, assistant coaches and support staff. They respect their experience, opinions and potential. They believe in their athletes to the point that athletes can feel that belief in their gut. They care about their athletes as people and performers, and challenge athletes to keep pushing their limits and become their best. And they support athletes every step of the way, especially through the big challenges, difficult times, injuries and setbacks.

At the high performance level, virtually all coaches are highly competent with respect to their technical and tactical skills. What separates truly great coaches from the rest, is that, in addition to imparting their technical and tactical expertise, they have excellent people skills. They are masters at meaning-

ful communication and building respectful, trusting relationships.

Truly great coaches have mastered the art of coaching largely because they mastered their capacity to: **Listen, Respect, Challenge, Believe, Care and Support.** In the preparation and lead-up phase to the Olympic level events, listening, respecting and challenging athletes in positive ways is critically important. In the on site performance phase, demonstrating belief in each performer and supporting them in simple ways, become the central factors in facilitating excellence.

Great coaches give athletes reasons to believe in themselves, their team and their capacity. They seize opportunities to enhance confidence, and are careful to avoid speaking or acting in ways that undermine confidence. They challenge people to push their limits in positive ways rather than negative ways, which is very empowering.

In the Olympic context, coaches and support staff also face higher levels of stress, more demands, distractions that they are not accustomed to, higher expectations, and less control over their environment than normal. To be at their best when it counts most, coaches and support staff also benefit from having focus plans and distraction control plans. Coaches and support staff who are able to remain positive, calm, and confident, and project belief in their athletes, can be a great asset to their performance.

On the other hand, coaches and support staff who become negative, stressed, or unglued in this environment can, and do, have a detrimental effect on athlete and team performance. They become another distraction that athletes have to deal with.

When there are problems within a coaching context, it is rarely related to an absence of

technical knowledge. It is almost always a communication issue. Athletes, performers or team members feel an absence of listening, respect, positive challenge, belief, caring or support. When these kinds of feelings surface within athletes or teams, and are not properly addressed, declines in confidence, motivation and performance are not far behind.

Hopefully, most coaches, already have some of these great qualities, and are working on improving others. If you are an athlete preparing to compete in an Olympic context, regardless of what your situation is, it is important to talk with your coaches about what will help you perform your best at this particular event. What is the most important role your coach can fulfill in helping, or at least not hindering, your performance at this event. Be clear on what you want, and do not want, in the lead-up time and just before you compete. Are there specific things your coach can say or do to give you that little extra edge in confidence, or to help you deal with some distractions? Is there a helpful reminder that you might like to hear, to make sure you are focusing on the right things at the right time? Discuss these kinds of issues with your coach if you feel it might be feasible and helpful in your situation.

Implications and Applications

Performing in the Olympic Games is different than performing in other performance context. Expect to feel different when you enter this context. But know that you can perform to your capacity within it. Know that once you begin performing, playing or competing, everything else will fade away. Once again it will be familiar. It will be just you and your performance.

Much of what keeps athletes positive, focused and in control through their Olympic pursuit is relevant to performing, living or

dealing with many of life's biggest challenges. These challenges may lie in giving birth or dealing with the fear of death, in overcoming sickness or maintaining health, or in being your best when it counts most in relationships, parenting, teaching, coaching, your studies, profession, business, or any other performance domain.

Olympic contexts, in and out of sport, are highly charged, emotional events, because at that moment you feel like your life, mission, reputation, value, relationship, or worth is on the line, and the outcome really does matter.

Before entering these contexts, plan your path. The advantage of good planning and detailed mental preparation in any Olympic context is success.

With a plan to remain positive and deal effectively with distractions, you will conserve your energy, lighten your perspective and enhance your performance, and the performance of your team.

We all face challenges in life where the demands are increased, outcomes are very important, and our ability to remain positive, composed and focused is put to the test.

When entering these challenges, pause for a moment to think about what you want to do, how you want to do it, and why you want to do it.

Remember that small things can make a big difference when working through obstacles, or living within emotionally charged contexts. Anything that makes you feel good, happy, relaxed, confident or focused, inside or outside this context, can enhance your joy and performance. **Moving along this path is very much a step by step process. I wish you the best in this quest.**

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The Nature of Effective Concentration Before and During a High Performance Event

Penny Werthner, Canada

Penny Werthner is a former Olympic athlete in Athletics and, since 1985, has worked with many high performance Canadian athletes and coaches in both individual and team sports. She has been a team sport psychologist at five winter and summer Olympic Games. She is currently a professor at the School of Human Kinetics at the University of Ottawa, and is an active Mental Training and Communication consultant

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Abstract

This study has attempted to reflect the complexity and the simplicity of the elements of the most effective focus or concentration required to excel at the highest levels of sport — world championships and Olympic Games. The athletes who participated in this study have illustrated a wonderful ability to look inside themselves for the answers and, at the same time, be open to sharing the powerful and sometimes unique ways in which they cope with the stresses and pressures of competition. It is hoped that the visual image that has been developed collaboratively with these athletes will help many other athletes and coaches understand the nuances of concentrating effectively.

The best thing is to think about what you want to do to race well. In the 500m, you think 'start fast, be explosive, and stay low, skate two crossovers coming out of the last corner when you're tired and the pressure is on.

Olympic Medallist,
1994 Olympic Games, Lillehammer, Norway
1998 Olympic Games, Nagano, Japan

The main thing, for us, was to focus on our line, playing well. So when we weren't on the ice, we were off the ice talking about strategy and what to do next shift.

Olympic Medallist,
1998 Olympic Games, Nagano, Japan
2002 Olympic Games, Salt Lake City, U.S.A.

Well, the expectations were there. I was thinking, 'I really want to win that medal. This is probably my last chance.' I allowed myself to feel those things because I had learned from the past, the hard way, that you can't hide from those thoughts and feelings. When I started to feel those emotions or thoughts, I would remind myself to get my thoughts back in the small circle.

Olympic Medallist,
2000 Olympic Games, Sydney, Australia

The above quotes illustrate the very nature of what is required to succeed at the highest level of sport - a clear focus or 'concentration' on execution of the race or the game plan. It is truly a simple task, but it is not a very easy one. A sport performance asks a great deal of an athlete or a team. A world championship or Olympic Games asks even more. While it has been noted in the media (*Globe & Mail*, January 23, 1996) that classical musical editing has become so sophisticated that as many as 100 takes may be required to create a single, note-perfect passage on a recording, high performance athletes are accorded no such generosity. For the Olympic Winter Games in Salt Lake City, Utah, and the 2004 Olympic Games to be held in Athens, Greece, the day and times for heats and finals, for preliminary games and the gold, silver, and bronze medal games are established months and years in advance. At an Olympic Games, athletes have only one or two chances to perform, often in front of the watchful eyes of millions. Years of physical, technical, tactical and psychological preparation go into being optimally prepared for those very specific moments in time. One of the most difficult aspects of performing well at a certain, pre-determined point in time is the ability of an athlete to know what to be thinking about or concentrating on, what to be feeling and, most importantly, how to be able to call up and maintain those thoughts and feelings with stresses, pressures, and distractions swirling about them.

We know, from much of the sport psychology literature and research, that mental skills are crucial in ensuring great performances at world championships and Olympic Games. We also know, as sport psychologists working in the field, that more and more athletes and coaches have begun to understand the crucial importance of being 'mentally prepared' as well as physically prepared for competition, and many have well-developed 'plans' for both training and competition. The often-referenced study by Orlick and Partington (1988), an extensive and significant study of 235 Canadian athletes who participated in the 1984 winter and summer Olympic Games in Sarajevo and Los Angeles, revealed that mental readiness was a significant factor in determining which athletes were able to perform their best under the pressures and stresses of the Olympics. The authors found that the ability to focus attention and control performance imagery were key factors in successful performances, and that quite the opposite was also true - that a large proportion of the athletes who failed to perform to potential did so because they were unable to maintain their concentration in the face of distractions. Those athletes who did perform to potential utilized a number of common elements of success. The authors stated that "...a striking result of this study was the consistency of certain success elements for virtually all of our best performers in all sports" (p. 10). From those findings, Orlick (1992, 1996, 2000) went on to propose a model of excellence which consolidated the

seven basic elements of success - commitment to the pursuit of excellence, belief in one's ability, full focus, positive images, mental readiness which included detailed plans for training and competition, distraction control, and constructive evaluation. The study by Orlick and Partington (1988) and Orlick's subsequent work have been extremely significant in helping athletes, coaches and sport psychologists clarify and consolidate the most effective ways to prepare for successful training situations and the inevitable stress of World Championship and Olympic competition.

Many other studies in the field of sport psychology have followed the work of Orlick and Partington (1988) and continued the learning process on peak performance, often through the use of qualitative research and interviews with athletes. Some of the research has specifically begun with a view of the high performance sporting world as a stressful environment and a number of studies have had the opportunity to study Olympic athletes and coaches. Scanlan et al. (1989, 1991) investigated sources of sport enjoyment and sources of stress for twenty-six elite figure skaters. The major sources of sport enjoyment were social and life opportunities, perceived competence, social recognition of competence, and the act of skating. The major sources of stress that emerged from the data were negative aspects of competition, negative significant-other relationships, demands or costs of skating, personal struggles, and traumatic experiences. The results noted that the sources of stress and enjoyment came from both inside the competitive setting and from outside the sporting world. The studies noted that individual differences existed among the athletes and strongly suggested that a comprehensive understanding of these stresses and joys in athletes' lives required a

consideration of the totality of their sport experience.

Jones and Hardy (1990), in interviewing six elite British athletes about their experiences of stress in sport situations, confirmed that the effective psychological skills that helped each of the athletes deal with the stress of competition were setting goals, relaxation, attention control, and confidence enhancement. Attention control, as the present study will point out, is a key skill in ensuring great sporting performances and is aided considerably, as noted by the authors, by having a detailed race plan with process-oriented goals as a central feature. Gould and colleagues (Gould, Eklund, & Jackson, 1992a, 1992b), in interviewing the 1988 American Olympic wrestling team, found that the use of systematic mental preparation strategies, such as preparation routines, tactical strategies focus and motivational strategies helped considerably in achieving the best possible thought and emotional patterns. These findings were consistent with the research of Orlick and Partington (1988). Similarly, a study of U.S. figure skaters by Gould, Finch & Jackson (1993) found that the mental skill set included rational thinking and self-talk, a positive focus and orientation, precompetition mental preparation, and management of anxiety. More recent research on Olympic Games preparation by Gould and colleagues (Gould, Guinan, Greenleaf, Medbery, Peterson, 1999) investigated the factors affecting the Olympic performances of more and less successful teams. In this study, individual interviews were conducted with the coaches of eight 1996 American Olympic teams and focus group interviews were conducted with athletes on those teams. The major themes that distinguished the successful teams from the less successful teams were time together training as a team, crowd support, family and friend support, mental

preparation, and focus and commitment. The study noted that both the successful and less successful teams felt they experienced stress and pressure leading up to the games, but the athletes on the more successful teams had detailed mental preparation routines and adhered to them. Those athletes also reported a sole performance focus, a total commitment to the process, and very specific coping strategies.

Mental preparation and how an athlete copes with competitive stress is closely linked to the athletes conscious thought patterns, both during training sessions and before and during competition. In a descriptive study of self-talk of varsity athletes, Hardy, Gammage & Hall (2001) discovered that the athletes used self-talk to both motivate themselves and to keep their focus on the skills necessary to execute the sport successfully. While the authors conclude that future research should focus on the function of self-talk rather than the content, the present study would argue that clearly understanding the differing kinds of content within conscious self-talk would be extremely helpful for athletes and coaches, particularly in terms of learning how to develop cue words and phrases that would be most useful within a competitive situation.

Boutcher (1990) looked at the research that presently exists on the performance routines of athletes, the effectiveness of these routines, and some methods for developing such routines. The author noted among his findings the importance of attentional control, which was succinctly put as the ability of the athlete to focus on task relevant cues rather than task irrelevant cues. Hanton and Jones (1999), in investigating the cognitive skills and strategies of ten male elite swimmers, found that these skills and strategies were developed over time and

that the athletes learned how to interpret their thoughts and feelings in a positive way. However, it is the raw data in this study - 'picture myself in the lead', 'concentrate on technique', 'scared of racing', 'worried about making mistakes' - that really help an athlete and coach understand the kinds of thoughts and feelings that can help or hinder a performance. Similarly, Dale (2000), in a study examining the distractions and coping strategies of seven elite decathletes, found that six coping strategies emerged from their discussions. These included imagery/visualization, being aware of cues, which were very specific to the task that needed to be performed, competing against oneself, being confident in their training, consistency, and camaraderie. These strategies helped the decathletes cope with various distractions and be assured of personal best performances.

Finally, Rotella & Lerner (1993) bring a very important perspective, and one that is often forgotten, to this discussion of how an athlete might best learn to respond effectively to the competitive pressure of elite sport. The authors suggest athletes adopt a healthy philosophical attitude to the inevitable pressures of competitive sport and learn to look within themselves for an understanding of what works for them. It is the premise of the present study that a combination of the development of self-awareness, the development of an understanding of one's thoughts and feelings, and of an understanding and development of skills that will help control one's perceptions and one's thoughts and feelings are what ensure, for an athlete, consistently solid performances in the face of Olympic pressure.

The present study was an attempt to better understand, (through the athletes' own words, images, and reflective process), the self-awareness they had developed and the

skills and methods they had learned and utilized in ensuring that they were at their very best when it counted the most - at world championships and Olympic Games. This study on effective concentration is based primarily on work with eight high performance athletes over the course of a year. (This visual image of effective thinking and concentration evolved out of a larger study that focused on developing a broader base of understanding of the whole life of athletes who were successfully competing at the Olympic level of sport).

Method

This study used a three-phase interview process over a nine-month time period that encompassed training, training camps, national trials, international competitions, and a world championship. The eight athletes were chosen on the basis of having already won a medal at a world championship or Olympic Games over the previous three years or being a world record holder, and were continuing to train for the next major international competition, the 1998 Olympic Winter Games in Nagano, Japan. A series of three, in-depth interviews were conducted with each of these eight athletes. The three phases of interviews took place during the months of December/ January, a training and initial competition period; the months of February/March, an international and World Championship competition period; and the months of May/June/July/August, an off-season, recuperative time period.

Each of the eight athletes met the following criteria:

- *had won a medal in a world championship or Olympic Games, or held a world record in their event;*
- *were continuing to train and compete at an international level*

- *anticipated competing in a world championship and Olympic Games.*

Specifically, the eight athletes/participants in the study were:

- *four women athletes, four men athletes;*
- *five of the athletes competed in short track speed skating, two competed in long track speed skating, and one competed in women's ice hockey;*
- *ages ranged from 19 years of age to 32 years, with a mean age of 25.*

Data Analysis

The primary sources used to guide the data analysis of the study were the work of Miles and Huberman (1994) and Stake (1995). The study began deductively with an initial question (Tell me about how you prepare yourself psychologically for training and for competition) in order to open the dialogue between the researcher and the athlete about what and how they thought and felt in training sessions and in race/game situations. At the same time, the design of the study allowed for emerging patterns and themes, particularly in the second and third interviews. Stake (1995) has stated that the "...two strategic ways that researchers reach new meanings about cases are through direct interpretation of the individual instance and through aggregation of instances until something can be said about them as a class" (p. 74). The present study attempted to understand and directly present the athletes' world, including the contradictions and the surprises, and, at the same time, to build toward patterns and themes that would illuminate precisely how each of the athletes went about developing self-awareness and effectively preparing for training and for world championships and Olympic Games. It was very much a reciprocal process between the researcher and the athletes as

participants and experts. The interviews were transcribed verbatim, and prior to the second and third interviews, each athlete had an opportunity to read their transcript as well as a one-page summary of the interview. It was an opportunity for the athletes to comment on the interview and to initiate further discussion on their development of self-awareness and concentration and focus for competition.

Rubin & Rubin (1995), from a constructivist paradigm, have written that their approach to qualitative interviewing assumes an ever-changing world and that what we hear depends on when we ask and to whom. The three phases of interviews created a unique opportunity for dialogue with these athletes over an extended period of nine months. It was possible to meet with them when they were in serious training, when they were in the midst of or just after completion of a world championship, and when they were well rested and had some time for life outside of sport. An interview with an athlete at the time of winning a world championship took on a different tone and focus than an interview six months later when/if the athlete was catching up on school work or taking some time off training and competing. This three-phase interview process was able to capture those variances.

Results

The dialogue with each of the eight athletes and the visual image of effective concentration created by the athletes are presented using the athletes' own words, thoughts, and feelings. First, the elements of an athlete's thought process and their ability to know, train and maintain the effective thoughts and emotions under all the stresses, pressures, and potential distractions of world championships, Olympic qualifying races and Olympic Games are discussed. Second,

the visual image developed by the athletes in collaboration with the researcher is discussed.

'In the moment' focus and self-awareness

All eight of the athletes were very clear about what was required to perform their best during a race or game situation. They spoke about the need to be 'in' the race or game and not anywhere else, especially not 'ahead of themselves', meaning thinking about outcome instead of the 'doing' of the race or game. One athlete said, "...the best thing is to think about what you want to do to race well. In the 500m, you think 'start fast, be explosive, and stay low, skate two crossovers coming out of the last corner when you're tired and the pressure is on.'" Another said, "... the main thing for us was to focus on our line, playing well. So when we weren't on the ice, we were off the ice talking about strategy and what to do next shift." In his silver medal-winning Olympic race, another athlete talked about 'staying low and thinking power' on the last corner of the race. He also talked about seeing the video of his Olympic race and said, "I look at my face when I'm on the line and it's like stone. I mean, it's absolutely clear of any emotion at all except focusing. I can see this face; it's just totally not seeing anything around. I was all out, going for it. There was no holding back, and if I was going to be disappointed, it was because my best was not good enough." This example of intense focus was achieved through the athlete's orchestration of a number of factors. He had the coaching he needed, he had learned a valuable lesson from a previous Olympic experience, his physical and mental training had been going well, and he had had a number of good international results just prior to the Olympics. All of this enabled him to feel very self-confident and have a strong belief that he could win a medal.

Another athlete also talked about the focus he brings to the training situation. “I like to concentrate on my technique. You don’t see me talk too much on the ice. I’m always thinking about where to put my weight and which part of the blade I will push. I’m always concentrated in training.”

A number of the athletes offered examples of when they ‘lost their concentration’ or ‘got ahead of themselves.’ A three-time world champion and an Olympic medallist gave the following example. “In the semi-finals, let’s say you’re leading, and it’s one lap from the finish. You have one lap left and you’re headed to the finals, and in the finals, you have one person to beat to win an Olympic medal. Just thinking that, when you get to that last lap of the semi-final, is enough to break your concentration and make you fall.” This comment very clearly illustrates both the need to ‘stay in the moment’ and the incredible difficulty in doing so, particularly when an Olympic medal is at stake. The athlete was very aware of this and he said, “I’m not about to forget it!” This illustration of lost concentration is very much related to expectations and thoughts about the winning of the race instead of the execution or ‘how to’ of racing or competing.

Another athlete talked about the difficulty of following up a world cup win with a second good race. He would have an exceptionally good result one day and the next day fail to finish in the top ten. After much thought over the course of the series of interviews, when asked what he thought was going on, he said, “...expectations. The first world cup race I was feeling very relaxed and confident, just concentrating on skating well. The next day, I wanted to win again and I think I went too hard. You want to start too fast, you want to turn too well, you want too much, you get ahead of yourself.”

This ‘in the moment’ focus is very much a conscious, thoughtful process on the part of the athlete. While often assumed to be related to the flow experience, it is, first of all, about being focused on the task at hand, on technical cues or game strategy, and on feelings of confidence. It is also clear how easy it is to lose this ‘in the moment’ focus. As two athletes said, as soon as you ‘get ahead’ of yourself and start ‘expecting’ or ‘thinking about’ a certain result, a good performance is almost always lost.

The Skill of Visualization

All eight athletes spoke of using the skill of visualization to help them train well and be well prepared for their races or their game. One athlete, who was extremely thorough in his mental preparation, said, “I prepare for the world championship races far in advance. It’s not complicated, I just do visualization.” This comment belied the intensity and incredible commitment of this athlete to ‘seeing’ and ‘feeling’ what he was about to execute in a race situation. He spoke of sometimes seeing his best previous races, and as it got closer to the world championships, he would see different possible scenarios involving different competitors. He added that in terms of visualizing, ...“I have to get it right. If I can’t get it right, I won’t stop doing visualization until I do. If I have to rewind the race, well, it’s going to rewind.” Another athlete, during training on the bike, would focus on one competitor from another country and visualize beating him. “I think of ‘M’ as one of the top guys, and for me to beat him I knew I had to be at the top of my game and I’d have to work hard. There are just so many good guys in the world...in particular, I just thought of ‘M’. I’d go over the race second by second, over and over again, how I would want it to happen.” He also said that this helped motivate him in training. The images were incredibly vivid and as a result quite power-

ful. He said, "...when I'm really into training, when I'm really hammering down the line, and I feel good, that's when I have those kind of visions. It's just something that I want so bad." In describing his winning race at the 1997 world championships, one of the athletes said, "...just before the start of the race, I thought about being a rocket off the line. As soon as the gun goes, a bomb that explodes. And it went well off the line; I won the start and I won the race."

Another athlete said that "...if we did something new in practice, something a little different, I'd go over it and kind of replay it in my mind at night, or as soon as I woke up. I'd see myself doing it well. In the rest time, I'd put my Walkman on and visualize game situations and just try to get those good winning feelings." She also said that she thought about the gold medal at the Olympics. "I see myself on the ice getting that gold medal round my neck, the feeling of victory."

For these athletes, visualization in training was often about winning and seeing oneself beating others. Such images built confidence and sustained an athlete during hard training sessions. Visualizations for competition were powerful, vivid images, and 'seeing' and 'feeling' oneself execute certain moves or race/game strategies.

Planning and Preparation

Closely related to the 'in the moment' focus and visualization is planning and preparing for races and game situations. Six of the athletes spoke specifically about how they planned. One had a well-defined race plan that he would review and visualize in the weeks leading up to a race. He was working on making it more than just words, planning a web page on his computer with visual images. Another athlete spoke of the amount and thoroughness of his preparation. "I

prepare for races months in advance because you just can't prepare two minutes beforehand." For the coming Olympic year he said, "...I just have to be careful to not forget anything." For these two athletes, much of this work was done on their own, with little direct intervention from their coaches.

In contrast, four athletes referred to team meetings that helped remind them and make them more conscious of what they needed to be thinking about during a game or race. In the game situation, the coach led, reminding the athletes of the strategy needed and of their individual roles. Whether this meeting took place the morning of the game or briefly between periods in the game, the athlete then took a few minutes to internalize what was said and visualize execution of the play. For the other three athletes, who were involved in racing relays, the coach and the team sport psychologist would bring them together and facilitate the discussion of strategy for the next day. As one of the athletes said, "...for me, it was something of a wake-up call. A lot of things our guys do is to take the simple things for granted, and it's good to get back to the basics and realize what it takes to win, and what you have to do. And when you touch on those, it makes it conscious, even if they're in the back of your head and you know it. I think it helps a lot." One of the reasons this athlete was so receptive to spending time with his teammates, articulating what needed to be done in the next days relay races, was because two years prior he had lost the overall world championship because he failed to slow himself down and consciously prepare. Prior to the final race of that competition, he had cut his hand. "I was just a bag of toys, running around with my head cut off, trying to get stitched up, trying to get my head into the 3000m. I didn't stop. I don't think I dried off my skates. When I asked him what

he would do differently, he said, “I would have sat down and really talked to myself. And gone for a run and really thought about what I had to do. Really go over the race and when I had to move up.” So he learned a tough but valuable lesson from that year that helped him win a world championship race in 1997.

The thoughts and emotions expressed by the athletes regarding conscious planning and preparation builds on the work of Csikszentmihalyi (1990, 1993) on consciousness and attention and on Orlick’s (1992) element of mental readiness. Csikszentmihalyi (1990, 1993) wrote that the best way to live was by learning to control consciousness, and that by being conscious of events and one’s feelings, one can begin to *direct* their course. This was one of the lessons learned by these athletes. The injured athlete came to realize that when things didn’t go quite as planned, he needed to step back and take time to reflect on his thoughts and feelings; only then could he consciously plan for a good race. Csikszentmihalyi (1993) has suggested that one must cultivate certain skills in order to control consciousness. These athletes were doing exactly that by becoming more self-aware and by consciously learning and practicing certain psychological skills, which then allowed them to control and direct their own performance. This sense of control and direction also inevitably influenced an athlete’s will to continue and level of self-confidence.

Analysis of performances

Three of the eight athletes spoke of spending a great deal of time reflecting on and analyzing their performances. One said that he trained to be first and “...if I don’t win, I always ask myself questions on why I didn’t win.” And then he would spend the time turning it around and visualizing a better strategy and quite specific tactical moves

that would enable him to win the next race or competition, such as preparing for an earlier pass or moving up sooner in the race. Another athlete felt strongly that more time should be spent analyzing one’s good performances. “I think many athletes analyze bad races more than they analyze good races. I think they dwell on bad races, trying to figure out why it was bad. I think it’s hard to not dwell on a bad race, but it’s important to figure out why you had an awesome race. If you don’t know why you felt great, you’re going to be pretty insecure the next time you get on the line because you have no idea why you felt great.” The third athlete who spoke about analysis of performances said, “...it’s important to build on the good things that you do, not the races where maybe you fell or you didn’t feel so good.” Such analysis relates directly to the skill of visualization. As the athlete is reflecting on what she is doing well, the images that form in her head are positive ones. The emphasis on the good performances also helps build feelings of self-control and self-confidence. Developing such a level of awareness is critical for athletes and enables them to gain an understanding of exactly what works for them, as well as developing the ability to recognize when something is not working.

Perspective

Five of the eight athletes spoke about the perspective they bring to their sport career. They were all very aware of the immense pressures of the 1998 Olympic year and they all felt they were going to try to ‘not let it get too crazy’. Several of them said that although their sport activity is very important in their life, it is not the only thing. One talked about a perspective he had developed.

“It’s a motto or words that I’ve lived by over the last few years, that

you're going to have your bad races, you're going to have your ups and downs. And when they come along there is nothing you can do about it except learn from it and move on and try to better yourself for the next day, the next race, the next competition, whatever it is."

Another athlete said. "I think I have put speed skating in a good perspective. I really care. I think about it and work hard, but I don't look for happiness just in speed skating. Winning the world team championship was beyond my expectations, and for the moment it's great and I'm proud of it. But after that life goes on." Perhaps part of the reason this athlete was able to maintain such a perspective was because he was doing very well at university and had already been part owner of a successful company.

Another athlete, who had done a six-week internship as part of her university degree, said that the internship had given her a different perspective on life in general, helped her appreciate her life in sport more, and had given her confidence for life after her sport career would be over. Several of the athletes talked about the year before an Olympics being an exception because they would be very focused on preparing for the Olympics and that would exclude, for a time, much else.

The perspectives these athletes had developed about their sport careers certainly influenced other parts of their lives, in particular, whether they chose to have other interests in their lives or rather lead a life more focused on sport. Several athletes reflected on the pressures of the competitive sport world and understood that Olympic year would require a very singular focus. Others were clear that their happiness didn't

come just from sport and felt it was helpful to have other interests outside of sport.

Intensity and Aggressiveness

In this study intensity can be discussed in terms of both an athlete's training and in terms of an actual race or game situation. One athlete spoke about regulating the intensity of his training. He felt that the previous year he had taken every training session and every competition with the same high level of intensity and was quite burnt out by the middle part of the season. "So I just have to control the intensity a little bit. Not only the intensity and the way I skate, but also the way I prepare mentally for practice." He was thinking about more selective peaking for Olympic year and not allowing himself to get upset when a certain practice is not great, but rather being ready for the big races of the year - the Olympic trials, Olympic qualifying races and the Olympic Games. His plan for the following year was to ensure that the level of intensity was up for those three important points in his career.

In terms of a race or game situation, the level of intensity is very much related to the 'in the moment' focus that an athlete wants to maintain. In assessing a previous world championship game, one athlete felt that she had not been well enough prepared. "I think I was just flat. The first three or four shifts set the tone and we just had a bad start and it got off the track." What was the lesson learned? "Better damn well come out and play. It means that I have to get ready 10 minutes earlier, have a better warm-up, a more intense warm-up. I have to step up the intensity a notch from a physical sense and a mental sense. I think it's both."

Three other athletes who used the word 'intensity' also talked about getting their adrenalin and aggression up. One athlete

planned on working on her aggressiveness, but at the time of the interviews had not actually put it in place. Another said, "...on race day, that's part of what I focus on, getting my adrenalin and aggression out. I do it by breathing. I think about the way I breathe. I try to remember to breathe out really aggressively. I tried pushing out all the oxygen out when I trained and I felt good, so I tried it in races." The third said, "...I always try to pump myself up. For me it works if I try to get even more aggressive. I think about being explosive off the start."

This discussion on intensity is about the athletes struggling to find the right balance of intensity in two differing ways. One level of discussion was about intensity in terms of a long training and competitive season and discovering how to 'peak' at the right times. The other level related to the intensity or 'aggression' required of these athletes because they competed in explosive, sprinting races and the intense game of ice hockey. Again though, it is a conscious task that each athlete is engaged in to find the 'right' mix for himself.

Trusting Oneself

A necessary element of great performances in sport is finding a balance between the 'in the moment' conscious thinking process and the more instinctual 'let it happen' flow of the race or game. The athletes in the present study, each of whom had years of experience at the highest level in sport, talked about how to find the right blend of these two aspects. They used the words 'instinct' and 'trust' to describe 'letting' or allowing their bodies and brains to do the job:

"Our sport is so hard because we have to come up and down all day. It's so hard. One race alone is so hard on your brain, but when you do

it four or five times per day against guys who are just as good or better than you, it's really hard to do. You know, you have a good race and you come off the ice and then you have to go out and do it again, so sometimes it becomes more instinct."

The same athlete said, "...you have to be prepared mentally, but if you spend too much time, it can be detrimental." These thoughts of not wanting to think too much were echoed by the U.S. Olympic gymnast Peter Vidmar, in an interview with sport psychologist Ken Ravizza (Ravizza, 1996).

Another athlete said that once she steps on the ice, "... I feel like I'm on auto pilot." This connection to one's performance is similar to Orlick's (1992) element of full focus, and related to the element of belief. This trusting of oneself, of letting go of the conscious need for control, concurs with Jackson's (1995) theme of release of conscious control as one of the factors that helps athletes get into a flow state. Rotella and Lerner (1993) have also used this word 'trust' to define the letting go of conscious control. Csikzentmihalyi (1990) has called this the possibility, rather than the actuality, of control. Nevertheless, when an athlete is well prepared for a performance, and knows she is well prepared, both physically and mentally, she is able to feel fully self-confident and can then trust herself to let it happen.

Creativity and 'Feel on the Ice'

All of the athletes in this study spoke of working on attaining a certain 'feeling' on the ice, which related to the technical and/or creative aspects of their sport. They spoke of the importance of the feeling they wanted to have in their performance or on the ice. Much of this was dependent on their blades, the 'bend' and 'rocker' of those blades, or

the working with a hockey stick blade, to make a prototype. One athlete said, "...I know the feeling I want to have to skate well."

One athlete spoke extensively about the creative and artistic side of what she did. "Sport, especially speed skating, when it's so technical, requires you to be artistic. And that's where the creativity comes in. I'm pretty creative, feeling the rhythm and the softness, the gracefulness. I feel that skating is something that you have to feel, but once you feel it you have to figure out what it is that you felt." This was an athlete who thought the analysis of the 'awesome' race was crucial for continued success, and who talked passionately about the technical aspects of her sport. This striving to solve minute technical aspects of the sport and yet, at the same time, maintain some sense of feeling, of the aesthetic, illustrates the creative side of sport. There was a sense of joy for this athlete in searching for this feeling and in maintaining the softness and gracefulness on the ice. Similarly, Scanlan, Stein & Ravizza, (1989), in a study of figure skaters, found that one of the sources of enjoyment was the creativity, inventiveness, and the very act of skating. There was as well, with several of the athletes in the present study, sometimes a sense of frustration related to this striving, when they were not able to find that 'feeling.'

'No Excuses'

In describing his Olympic silver medal race, one athlete spoke about the ever-so subtle nuances of a great performance. "Everything went perfectly for me that week, and that's something I think a lot of athletes panic with. When everything is going perfectly, they can't deal with it. So they come up with some excuse, 'well, I was tired today, so if I don't win that's why.'" When asked how he didn't fall into this trap, he replied, "... I

refused to do that because I did just that in Albertville (1992 Olympic Winter Games). I gave myself an out in Albertville, saying I was still an underdog, so it was okay that I didn't win a medal. In Lillehammer (1994 Olympic Winter Games), I refused to do that. I can be disappointed if I have my best race and people are better than me, but there was no way I was going to give myself an excuse."

On one level, these comments are about this athlete's strong sense of self-confidence and a powerful belief in his ability to perform despite the immense pressures of an Olympic Games. On this level, the athlete's comments certainly concur with Orlick's (1992) core element of belief. On another level, underlying this sense of self-confidence and belief in oneself are the athlete's thoughts on having no fear in putting it all on the line. Cohn (1991), in a study on peak performance in golf, identified the absence of fear as an important psychological quality. Nevertheless, this concept of 'no excuses' brings something subtle yet decidedly new to the literature on the mindset of peak performance in sport. While Rotella and Lerner (1993) have written about athletes learning to not 'psych-out' themselves when they feel nervous, this athlete is talking about learning to not panic (or not get 'psyched out') when, in fact, everything is going very well.

Distractions

Four of the eight athletes in this study faced two distinct distractions that had the potential to disrupt their ability to concentrate effectively for the upcoming Olympic year. Three of those athletes had experienced a particularly devastating Olympics in 1994 in Lillehammer, Norway, and it continued to be a concern for each of them at the time of being interviewed. One of the athletes essentially 'lost' a bronze medal. In the

Olympic final, he and another skater fell, he got up and finished, which normally would have ensured him the bronze medal. But he was told he had an incorrect number of laps and was disqualified and the medal awarded to another skater. Clearly, it was quite a chaotic time for the athlete. His voice was full of emotion when he spoke about it:

“It takes a lot out of a person. For me to train, to dedicate 11 years of my life... it kind of leaves a bad taste in your mouth. It was really disappointing for me. It had a big effect on me emotionally, mentally. Like the ultimate, in many athletes’ career, is having a shot at the gold. And I had that and it was just taken away from me.”

It took this athlete two years to find his heart again and re-commit to his sport. Fortunately, he went on to win a world championship race in 1997 and, at the time of his final interview, was feeling very confident for the 1998 Olympics. He was still concerned about the refereeing, however. In the 1997 worlds, he said, “...I was really disappointed by the refereeing. The thing that really bugs me is that it seems a referee will make a bad call with absolutely no hesitation or remorse. It was such a shabby call (against another athlete). It’s just disappointing to know that that can happen.” But he clearly understood that the referring was not something he could control and he knew what to do. “The best we can do is just go out and race, race the best you can, and try not to let the referees have that option.”

Another athlete spoke of his fear of falling in the up-coming 1998 Olympics because he fell twice in the 1994 Olympics. “It’s one of my fears, for sure. I’m afraid of wiping out. I’m going to the Olympics this year, and of course I’m going to think about it because in

’94, it happened to me twice.” But, although he seemed worried about repeating the same mistakes, he also seemed clear, in the third interview, on what he needed to do. “I still think about Lillehammer, of course, but just in one sense, in the sense of knowing what not to repeat. I live in the present now.” It appears that he knows what to do to perform well. The difficulty will always be in doing it under the immense pressure of the Olympic Games.

A third athlete spoke of the enormous pressure and expectations going into the Lillehammer Games. “It was six months of hearing about the gold medal that I was supposed to win. And it’s just because it’s the Olympics and you’re more nervous than normal.”

One athlete was concerned about the state of refereeing in her sport. She recalled poor refereeing at the 1996 world championship. “One ref, you never knew what she was going to call. She called a penalty on the (other team) only after the fans were screaming at her for 5 or 6 seconds and then she puts her arm up and gives us a power play. It was ridiculous. But you can’t control those things obviously.” Each of these athletes was very aware of the distractions they had faced, and would probably face again in international competition. Orlick (1996) has stated that being able to control distractions is one of the most important mental factors affecting consistency of performance. Being clear about what has distracted them in the past was the first step for these athletes in preparing for future performances. They also recognized the powerful emotions caused by these distractions and understood that some things, such as refereeing, were outside of what they could control.

A Visual Image of Effective Concentration

From the myriad of thoughts, emotions, and reflections expressed above, a visual image of the process of effectively concentrating within the stressful environment of world championships and Olympic Games was developed in collaboration with the eight athletes in this study. First of all, in reflecting on what each of the athletes had talked about in terms of how they went about preparing psychologically for competition during the Phase I interviews, the researcher developed an initial image. An initial visual image illustrating how to go about being effectively concentrated was presented to each of the athletes in the second phase of the interviews and each suggested adjustments, how it might ‘fit’ for them, and what might be ‘in’ each of the circles. The researcher then added what each athlete had said, refined the image, and presented it during the third and final phase of interviews. Each of the athletes felt that the visual image was a useful way to clearly understand the whole process of what was required to be well prepared psychologically for Olympic level competition.

(The following article in this issue of the *Journal of Excellence*, an interview with Steve Giles, bronze medallist in Sydney in C1 1000m, illustrates in greater detail the learning process involved in developing effective concentration skills and how the image helped him in winning a medal at the 2000 Olympic Games in Sydney, Australia).

More specifically, this visual illustration of how the eight athletes went about ensuring a ‘best performance’ in the competitive situation is meant to emphasize the sense of action required by the athlete to be ‘in the moment.’ What is ‘in’ each of the two circles is unique to each athlete and is dependent on the individual experiences

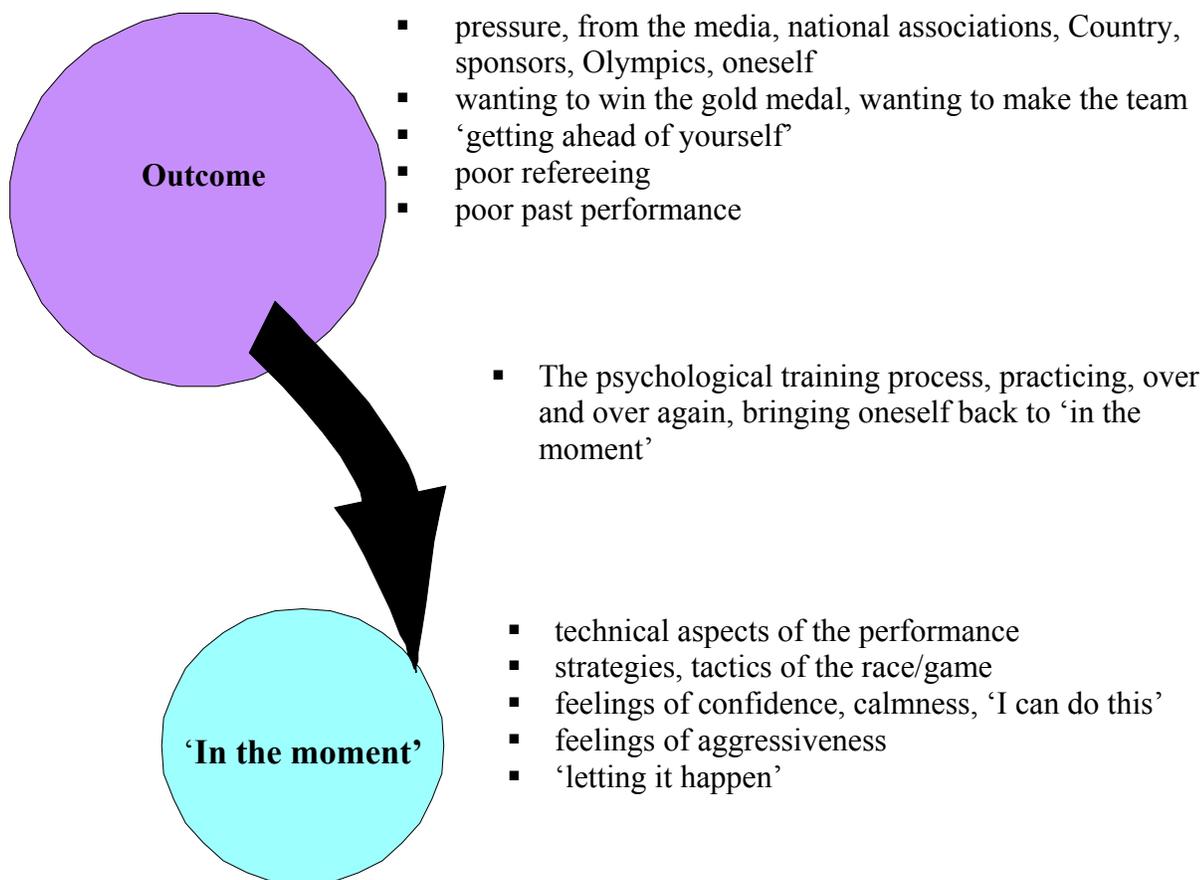
each athlete brings from their life inside and outside sport, as well as the requirements of the sport and event in which they perform. The content of each of the circles may vary from athlete to athlete and competition to competition, depending upon the athlete’s changing perception of the stresses and pressures of a particular race or game. However, in general, the larger, upper circle is related to outcome - the winning of an Olympic medal, past poor performances, and all the possible outside influences, distractions, and pressures imposed by both others and the athlete. For example, poor refereeing and falling at the 1992 Olympics, were, for the athletes in this study, two major issues they faced and were therefore part of the larger circle. These were aspects of performing in sport over which the athletes had little direct control.

The lower and smaller circle is the ‘in the moment’ focus, where an athlete wants to be thinking consciously about a few simple, clear technical aspects of the race or game, including perhaps some positive statements and feelings that reflect a high degree of self-confidence. Athletes, given good physical training and solid mental practice, do have control over the aspects contained in the small circle. For example, in this study, because the athletes competed in sprint races and the game of hockey, intensity and aggressiveness were part of the focus in the small circle.

It is also in this smaller circle that each athlete wants to discover for themselves the balance between conscious thought processes focused on a few, clear aspects of the performance, and the more instinctual, trusting of one’s physically well-trained body. Partington (1995), in his study of classical musicians, illuminated this delicate balance with a quote on performing from one musician. “I’m not on automatic pilot. I

must concentrate on the moment, flowing with it” (p. 150). It is also essential for each athlete to understand that they probably will think about winning the race or game, or feel the pressure surrounding them. What is critical is learning to recognize those thoughts, not panic about them, and simply but firmly bring themselves back to the

small circle, the ‘in the moment’ focus. It is within this smaller circle that great performances are possible. The eight athletes in this study understood how to do this and were very successful at being in the small circle for their performance. Nevertheless, it was an on-going process for each of them.



Visual Image of Effective Concentration

Discussion

The ten elements that emerged from this series of interviews with the eight athletes - 'in the moment' focus and self-awareness, visualization, analysis of performance, planning and preparation, perspective, trust, creativity/'feel on the ice', distractions, intensity and aggressiveness, and 'no excuses' – reflect the complexity of being effectively focused for solid training sessions and great performances in competition. The visual image of effective concentration was an attempt to encapsulate all the complexity and interrelatedness of each of the elements into a single image that would help athletes and coaches better understand the process involved in being well-prepared psychologically for the stresses and pressures of competition.

All eight of the athletes were aware that, in order to perform their best, particularly within the pressure of a world championship or Olympic Games, they wanted to be 'in the moment', focused on the "how-to" of their performance, and not dissuaded by innumerable distractions and a focus on outcome. This 'reflective awareness,' as Csikzentmihalyi (1988) has called it, or the philosophical attitude as expressed by Rotella & Lerner (1993) is a key theme underlying all the components of effective concentration.

The 'in the moment' focus provides insight into what the athletes thought about and felt when they were totally concentrated on the task, and when and how they lost that focus, which almost always resulted in a poor performance. The athletes in this study either specifically 'thought' about small technical or strategic aspects of their performance and/or they trusted their bodies to physically perform the task and 'let it happen.' This latter aspect was developed into its own element or category called

'trust' as it became clear that there was a balance that needed to be found by each of the athletes between the more cognitive aspect of 'in the moment' and the more trusting or instinctual aspect. The balancing of these two aspects was individual for each athlete and for each performance. Inevitably, the athletes lost their 'in the moment' focus when they shifted their thoughts to results and expectations. Interestingly, although all eight athletes had a great deal of experience at dealing with the pressures and expectations of high level competition and at successfully staying 'in the moment', they still succumbed, at times, to losing that focus.

All eight of the athletes were also well aware that the skill of visualization helped them enormously in their preparation to perform, and was very clearly linked to the 'in the moment' focus. They knew that, while during training they could imagine beating an opponent, for competition they needed to shift those images to execution of their races or games in order to succeed.

There was conscious work on the part of all eight of the athletes to prepare race plans, game or relay strategies, incorporate lessons from previous mistakes, and practice those plans over and over again. Sometimes the athlete did the planning and preparation; sometimes it was in collaboration with the coach. Several of the athletes also felt that they needed to regularly analyze and consciously think about ways to improve their technical skills, and that they needed to develop an awareness of what worked for them from a psychological perspective.

In terms of extending what we know about psychological preparation and advancing the field of sport psychology in general, creativity and 'feel on the ice', and 'no excuses' open the door to a deeper understanding of

some of the more subtle but critical nuances of excelling in high performance sport. The athletes in this study spoke about a certain ‘feeling’ they were trying to create on the ice. Due to the highly technical nature of the sports in this study, it is no surprise that the need to cultivate a certain feeling of rhythm and softness on the ice is an important aspect of producing a great performance. The ‘feeling’ that they referred to was a feeling that they continually and quite consciously worked on in their quest for better and better performances. To date, research on the phenomenon of creativity has been much more commonplace within the domains of music, art, or dance than in sport (Gardner, 1993; Partington, 1995).

Although only one athlete spoke about the concept of ‘no excuses,’ it is a unique aspect that begs to be explored and better understood. As Stake (1995) has said, “the more qualitative approach usually means finding good moments to reveal the unique complexity of the case (p. 63). This athlete’s ‘no excuses’ was partly about a strong belief and self-confidence in his abilities, partly about having developed a sense of no fear, and partly about being able to *accept* a sense of being fully prepared for an Olympic performance and having the ability to let it happen. He talked about not giving himself ‘an out’ at his second Olympics. It was a poignant example of having learned a tough lesson, and unlike many athletes, having a second chance at the Olympic level to act on that learning. It was also an example of having no fear of putting it all on the line and being open to discovering whether one is good enough to be the best or the second best in the world. It is not often that, in life in general, we are called on to perform and be judged in such a manner, and yet this is what high performance athletes face every time they perform. And they are always

required to be ready to produce at a pre-ordained time, under the lights and, at the Olympic level, in front of the world. It is, without a doubt, an extremely high-pressure world. This lesson learned and shared by this athlete took years of performances, years of personal reflection, and the development of both a strong sense of self-awareness and a strong belief in his abilities.

Strengths and Limitations

A strength of the study was the series of three, in-depth interviews conducted throughout a whole year of competition and training. This created a reflective attitude in each of the athletes, a deepening sense of self-awareness of their lives as Olympic athletes, and an eagerness to continue the dialogue and the learning. One athlete said that she was looking forward to meeting a second time because the first interview had reminded her of so much that she had known, but hadn’t really taken the time to think about. The three-phase interview process also created an opportunity to capture the variances of an individual athlete’s perspective on themselves and the skills inherent in successful performances throughout a training period, a competitive period, and an off-season period.

A limitation of the present study is that the athlete-participants were confined to the Olympic winter sports of long track speed skating, short track speed skating, and the game of women’s ice hockey. The findings may have limited generalizability to other high performance athletes. However, in my continuing work with Olympic athletes and coaches in many sports, I have found numerous similarities in the thoughts and feelings that athletes use to create great performances, and the visual image as presented in this study has proven extremely useful in both clarifying and simplifying the

process an athlete uses to develop an effective focus plan.

Note: Seven of the eight athletes interviewed in this study went on to win one or more medals in the 1998 Olympic Winter Games and Nagano, Japan, and several continued on to win medals in the 2002 Olympic Winter Games, Salt Lake City, U.S.A.

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Enhancing the Hopes and Performance of Elite Athletes Through Optimism Skills

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Abstract

The first aim of this paper was to provide an understanding of how elite athletes' explanations link with their expectations and subsequent performances. As Schinke & da Costa (2000b) have argued, explanations are more than situated reasons for performance. Causes represent the performer's underlying interpretations and beliefs, and they predict exertions in effort, and self-fulfilling outcomes over time (Peterson, 2000). With this paper, we have suggested how explanations and performance have a reciprocal relationship for the elite athlete. A second objective with this paper was to clarify how the behaviors of optimism and pessimism learned within the parent/child relationship, and teacher/student relationship, both elaborated by Seligman (1991), can also hold true for the coach/athlete relationship. Based on evidence from Schinke and da Costa (2001a), it is suggested that athletes do not begin their elite athletic careers with predetermined explanatory patterns and behaviors. Rather, coaching staff and support-staff teach variances in optimism to their athletes. Further, we have suggested that each respective level of athlete development can provide a new opportunity in which to teach athletes positive explanatory patterns. Finally, and logically, it follows that sport and motivation researchers and practitioners can effect optimistic change at the athlete and team levels by altering explanatory patterns and by challenging how performers gather their evidence. Additionally, we can increase the chance of athletes' optimism skills waxing with time by teaching parallel optimism skills to their support-staff, starting with their coaching staff.

Introduction

The explanations of elite athletes and coaches fill our newspapers (Peterson, 1980). For those who find their eyes wondering to the sport section each morning over breakfast, there are reasons provided why our favorite athletes and teams perform as they do. Sport researchers including Biddle (1993) and Roberts and Pascuzzi (1979) have proposed that athletes explain the causes of their performance to several different factors. Some athletes explain outcomes as personal factors; others explain them in terms of the attributes of teammates or opponents (Schinke & da Costa, 2000a). Some athletes believe that their immediate results are permanent fixtures of performance, others believe that their results can fluctuate with time or effort (Schinke & da Costa, 2001a). Elite athletes' explanations indicate as much about the athletes, as the circumstances they describe (see Rettew & Reivich, 1995). Explanations provide insight into the deeply imbedded set of beliefs that are not only reflections of one's past, but also, self-fulfilling expectations of one's future performance. Seligman (1991) found that Olympic and Professional athletes' interpretations of earlier results are a more important predictor of future performance outcomes than the most precise statistical odds. Given that there is a close link between explanations and the ongoing pursuit of excellence, this paper will address what explanations mean to the development of elite athletes.

Specifically, our intentions with this paper are twofold, 1) to clarify the implications of elite athlete explanations of earlier sport performances on their later beliefs and performances, and 2) to carry this one step further by suggesting how to develop a proactive approach to elite athlete optimism and excellence in elite sport. The latter intention is extremely important to coaches,

management, and practitioners interested in fostering positive experiences and success. The intervention strategy we propose is grounded in Seligman's (1991) learned optimism strategies.

So what is in an Explanation?

Explanations are the reasons that people provide for circumstances relating to their own results or the results of others (Reber, 1995). There have been two prominent groups contributing to the attribution literature; those using Weiner's (1979) achievement motivation framework, and those adopting Abramson, Seligman, and Teasdale's (1978) learned helplessness formulation. The former movement, founded on research conducted by Bernard Weiner, provided motivation researchers with a popular and well-tested classification model for post-achievement attributions. In so doing, Weiner developed a framework that was used by many sport scientists to consider the explanations following athletic results (see Biddle, 1993 for a review). It was suggested that athletic performances, much like all other performances, would be assigned to four main attributions: ability, effort, the task's difficulty, and luck (McAuley, 1985). These attributions were evaluated based on the attributer's perception of control, where causality was assigned to, and the perceived extent that the cause would be stable over time (Weiner, 1985).

Each respective explanation, which was considered based on attribution and dimensional emphasis, was suggested to evoke an emotional response within the performer (Weiner, 1986). For instance, a loss that was attributed by athletes to personal inability evoked a response of shame. A loss that was attributed to a lack of support staff effort, in contrast, triggered an emotional response of anger. Though research using Weiner's framework pre-

dicted emotional responses (e.g., Brawley, 1984; McAuley, 1985), it did not bridge how explanations were linked with the performer's motivations, behaviors, and results in the short- and long-term. Hence, over the last decade, research using Weiner's attribution framework has waned in the sport sciences. In its place, researchers and practitioners have sought out new methods to understand the explanations of athletes in relation to agency, motivation, and on going performance (e.g. Newburg & Perrin, 1993; Orlick & Partington, 1986; Schinke & da Costa, 2000b).

Martin Seligman was a leader in considering explanatory patterns in relation to variances in peoples' motivations and behaviors (Peterson, 2000). With research stemming from studies in depression, Seligman has spent the last four decades building a convincing argument that causes are more than reflections without personal consequence, or words selected solely for their effect on an intended audience (Gillham, 2000). Causes are actual indications of how people think and feel about their own capacities in lieu of past experiences, and following, how reflections lead to subsequent hopes and behaviors in the short- and long-term. Employing a motivational framework initially developed by Abramson, Seligman, and Teasdale (1978), and grounded in peoples' explanatory patterns by Alloy, Abramson, Metalsky, and Hartlage (1988), athletes' causal explanations have been evaluated along three dimensions. These dimensions are causal permanence, personalization, and pervasiveness (see Seligman, 1991 for a review). Where an athletes' causes reside in relation to all three dimensions provides insight into how performances are evaluated, and how causes link with hopes for the future (Rettew & Reivich, 1995). Expectations, which are developed based on a series of past experi-

ences, provide indications of just how resilient athletes will be in terms of their behavior, should anticipated adversities materialize during performance. Each dimension will now be discussed in terms of what it means to elite athlete resilience and success.

Permanence

Athletes' explanations can in part be considered in terms of permanence; whether one result [or a series of results] is believed as likely to occur consistently, infrequently, or at all, in the future (Seligman, 1991). Some athletes believe that declines in their performance are impermanent, and that success will happen more frequently than not (Rettew & Reivich, 1995). For Lennox Lewis, a renowned heavyweight boxer, the supposed likelihood of becoming acquainted with the canvas seemed an unlikely prospect after a recent professional loss in the spring of 2001. Lennox' prediction of a pending win in the fourth round of his autumn 2001 rematch, suggested that he predicted his previous loss as impermanent. The self-perceived impermanence of athletic decline indicated by predictions of pending improvement served as a catalyst to heightened effort and eventual success. If Lennox were to have explained, as one Olympic Boxer did a few years ago to Schinke and da Costa (2000a), that poor results were an inevitable fixture of personal performance, his results would have been considered as contributing to permanent and debilitating expectations, motivations, behaviors, and eventual results. From these contrasting examples of how losses can be interpreted, it seems reasonable to deduce that sub-par performances are not as debilitating to elite athletes as how they interpret mitigating causes.

Explanations after success also influence elite athletes' motivations, and this influence

again depends on perceived causal permanence (Seligman, 1991). Successful athletes who predict future success as foreseeable undoubtedly hold positive and thus motivating expectations for their future. Athletes including Maurice Green, Mario Lemieux, and Michael Jordan fall into this category, and spend considerably more time focusing on what is needed to remain successful than its alternative: a preoccupation with future loss. By placing emphasis on what is controllable, successful athletes are able to remain successful, and are less apt to misdirect their focus on unforeseeable and uncontrollable possibilities (Rettew & Reivich, 1995).

There are other successful athletes who view their successes as impermanent (Seligman, 1991). Among this latter group, successes are seen as momentary, random, and lacking pathways to future success (Schinke & da Costa, 2001a, 2001b). Successes believed to random are typically ascribed to a lucky day, being on, experiencing the right weather conditions, or an unintended personal action or series of actions. When success is explained as impermanent, it fosters negative anxiety, a decline in confidence, a resulting decline in motivated behavior, and finally, the diminishment of performance and results (Schinke & da Costa, 2001b). Hence, success that is attributed to luck or other uncontrollable forces will not motivate and foster athletic excellence as much as any outcome paired with the anticipation of future control over pathways to success.

Personalization

Explanations of performance are also considered in terms of the situating of accountability (Seligman, 1991) or locus of control (Rotter, 1975, 1989). If athletes explain their wins and losses in terms of personal efforts, personal abilities, or the ebbs and flows in their performance, expla-

nations reside closer to an internal assignment of responsibility, than an external one. On the other hand, if wins are explained to the lackluster results of others, or tailored climactic conditions, and losses to the exemplary performances of competitors, assignments reside within someone else, or something else's control.

Schinke and da Costa (2001b) found that elite athletes typically have a broad base of successful experiences and a resilient belief of self to draw on during momentary setbacks. Smaller margins of error at the elite level dictate a more complete evaluative process. The result for many is a minimizing in distorted self-appraisal, a reduction in negative emotions, a resulting increase in understanding of performance related pathways, and a subsequent increase in hope, persistence, and accomplishment. Hence, at least for elite athletes, accurate information is often gathered regarding when to adopt or alter the internally and externally controllable pathways leading to mastery, and when to replace these with the useful momentary coping strategies (Bandura, 1997). Both tactics increase the elite athlete's opportunity for success through active measures. Exercises for mastery and coping circumstances can be found among Orlick's (2000) innovative sport psychology techniques.

Pervasiveness

The third aspect of the athlete's explanation is its evaluation along a continuum between specific situations and general traits (Seligman, 1991). Qualities that can be either confined to one context, or pervade across contexts, include such constructs as courage, optimism, confidence, and the capacity to be socially intelligent. To illustrate pervasiveness in sport explanations, let us consider the attribute of courage in boxing. For the boxer, courageous actions can be limited to

one bout, or they can extend throughout a professional career where all bouts are fought with high levels of conviction and resilience regardless of uncertainty and fear. Expanding further, the boxer's courage can transcend boxing altogether, and enter into domains such as bomb disposal, police undercover work, or becoming an air marshal. These latter forms of courage transcend contextually imbedded action, and imply a deeper trait of courage that can be regarded as inherent.

Assessing pervasiveness in elite athletes' explanations provides insight into whether athletes regard positive or negative actions as momentary or deeply imbedded attributes (Seligman, 1991). When actions are positive, successful, and regarded as indicative of a general behavior, they will be employed with consistency, and thus, be applied in a variety of life circumstances (Schinke & da Costa, 2001a). When positive behaviors are explained as situational instead of trait like, the underlying suggestion is that they will not be carried forward and implemented with the same conviction and success in a variety of different contexts. Just as a positive attribute might be regarded as pervasive [or not], so might a less desirable attribute such as cowardice, unbridled anger, or irrational thinking. Consider the attribute of unbridled anger in terms of Mike Tyson's capacity to bite a boxing opponent's ear lobe in a moment of frustration. It is conceivable that his anger and loss of self-control were situational and momentary. After all, we have not read of any additional ear-biting episodes recently when Tyson's name has been mentioned in the tabloids. Ongoing exhibits of behavior confined to boxing exploits would suggest that the behavior is not momentary, but that it might be contextual. If the behavior of rage carried outside of boxing to interpersonal relations, it would be regarded as a

negative and pervasive attribute that transfers across several discrete contexts. Taken a step further, if Tyson developed the belief that a complete loss of temper or control could occur anywhere, the consequence would most likely be a diminished belief in self-composure and a self-perpetuating decrease in general self-confidence (Bandura, 1990, 1997). Hence, what differentiates pervasiveness from permanence and personalization is its possible confinement or extension from one context to one's entire self-identity, one's self-label, and potentially, how one generally behaves.

What do Explanations Reveal about On-going Excellence among Elite Athletes?

Until now, we have outlined the nature of athletes' explanations, and what they suggest about athletes' perceptions. It seems clear that elite athletes can be differentiated from each other based on how they explain previous performances in relation to future expectations. Some elite athletes explain their outcomes in a manner that perpetuates the ongoing striving for excellence. These athletes are loosely regarded as optimistic sport performers (Rettew & Reivich, 1995). Taking one example of optimistic sport behavior, Seligman, Nolen-Hoeksema, Thornton, and Thornton (1988) found among the University of Berkeley Swim Team that some athletes rebounded after receiving poor swim times by increasing their efforts. Setbacks were explained to impermanent and personally controllable factors, and the result was increased effort and immediate success. Schinke and da Costa (2000a) similarly found among a small group of Canadian national team athletes that respondents were broadly divided into two groups based on differences in expectation of success, with only the optimistic group willing to focus on solution-based thinking, and the retrieval of pathways to tournament success. Seligman

(1991) confirmed that the same trend held true of professional basketball and baseball teams, with optimistic expectations predicting increased persistence and success over the span of several seasons. Together, these findings suggest that elite athletes [and teams] with optimistic explanatory patterns tend to respond with vigor to sport challenges and setbacks regardless of previous performance and increased task difficulty. Further, it seems clear that optimistic responses reflect positive outcome expectations and the proactive/solution-based thinking necessary for ongoing success within elite sport.

As suggested throughout this paper, there is also a second group of athletes, but they are broadly defined as pessimistic in their sport-related explanations and beliefs (Rettew & Reivich, 1995). Pessimistic athletes perceive and explain their pathways to success as impeded at least to an extent by one or more of the following: personal, other person, or circumstantial barriers (Schinke & da Costa, 2001a). Pessimistic athletes within the Berkley Swim Team assessed by Seligman and colleagues (Seligman, Nolen-Hoeksema, Thornton, & Thornton, 1988) decreased their efforts after adversity because they assigned results to uncontrollable and permanent circumstances such as personal inability. The same findings held true for the pessimistic Professional and Olympic athletes identified by Seligman (1991) and Schinke and da Costa (2000b). With explanations reflecting a negative interpretation style, the resulting behavior of apathy, or learned helplessness seemed logical. There would be no reason to increase effort when associated beliefs of incurable inability or circumstance served as the primary reasons for loss. In place of a search for solutions, then, the result of tournament-related pessimism for elite athletes was a downward spiral of impeded

performance stemming from one negative performance and perpetuating itself through a debilitating interpretive / explanatory pattern.

Optimism for Elite Athletes and Elite Contexts

Given the evidence mounted to this point, it seems that elite athletes' explanatory patterns are central to the understanding of their hopes and beliefs as well as the prediction of their short- and long-term results. The next logical consideration is whether the explanatory patterns of elite athletes are learned, and if so, whether they can be improved in the short-term and optimized in the long-term? Both of these questions are addressed in this section on elite athlete and context optimism. Additionally, recommendations are provided regarding how to develop elite athlete potential to the fullest through athlete and coaching staff training.

Where do explanatory patterns originate?

Until now, researchers interested in the socially learned aspects of optimism and pessimism have mostly confined themselves to parent-child and teacher-child transmissions of behavior (see Seligman, 1991), and much can be learned from their explorations. From that attribution research it is clear that parents educate their children in the areas of socio-economics, interpersonal relations, and personal and generalized expectations. Seligman (1991) has found that children learn their values and beliefs from their parents' explanatory patterns. Focusing on the learning of personal and inter-personal expectations, Seligman, Reivich, Jaycox, and Gillham (1995) have noted that most children are born optimistic and hopeful, but that their outlook does not necessarily remain that way. Parents, who explain their setbacks to permanent and pervasive factors, seem more

likely to transfer pessimistic generalized expectancies than do optimistic parents. Similarly, teachers who label their students are likely to instill beliefs that foster variances in learning capacity (Schinke, da Costa, & Andrews, 2001). In both instances, what seems to be acquired is one's likelihood of success given personal attributes and the externally instilled beliefs from the credible people in one's environment.

A child's learned behaviors from parents and teachers have a profound effect within the areas of life outlook and academic capacity, respectively. Peterson (2000) has recently hypothesized that feedback from either source can begin effecting the individual at either situational or global levels. Where the acquired explanatory pattern from a parent can be general and indicative of how situations are to be interpreted, the teacher's messages to the child might be constrained to academic learning. Schinke and da Costa (2001a) have suggested that the athlete's hope of performance can be regarded on the situational level as in formal educational domains even though interpretive patterns and labels can permeate to one's entire self-image. Paralleling elite athletes to the students placed in educational settings, Schinke and da Costa's preliminary research indicates that sport-related explanatory patterns and beliefs are passed from coach to athlete. Anecdotal evidence indicates that athletes begin the elite level of their sport careers with the same formative ambition as Seligman and colleagues' hopeful school children (Seligman, Reivich, Jaycox, & Gillham, 1995) and as Schinke and colleagues hopeful graduate students (Schinke, da Costa, & Andrews, 2001). There is a belief in personal attributes, a belief in support-staff efforts and abilities, and a belief in the likelihood of success. Despite shared initial hope among elite athletes,

Schinke and da Costa (2001a) have found that explanatory patterns and resulting differences in success follow from personal coaches' sport-related views. Optimistic coaches teach the hopeful expectations necessary for ongoing persistence, solution-based thought, and resulting athletic excellence. Pessimistic coaches, in contrast, prepare their athletes for the reduced likelihood of sufficient pathways to consistent athletic excellence. Concurrently, the pessimistic athletes learn the same problem-focused thinking as their coaches. The result for both groups is a learned expectation of future development, a learned habit of how to frame confirming evidence, learned self-regulatory strategies, and a learned level of resilience that can shape long-term results.

Resilient performance through optimism training

Given what has been said thus far, the final step with this paper is to consider where we might begin when attempting to foster increased athletic optimism and excellence in the future. Though we have not mentioned it until now, it must be recognized that elite sport has already provided people in general with a unique forum to consider motivated behavior at its finest (Peterson & Seligman, 2001). Sport psychology authors including Terry Orlick (2000) and Al Huang and Jerry Lynch (1992) have suggested how to excel in all types of performance including sport, business, and life. Despite a strong indication that elite sport is at the forefront in suggesting pathways to motivated behavior, there is still some room for growth. Two areas suggested in this article are the understanding of explanatory patterns and the learning of optimism skills (see Seligman, 1991).

Over the course of the last ten years, optimism intervention strategies have been developed through Martin Seligman and his

colleagues within the Department of Psychology at the University of Pennsylvania. The emphasis of their research, outlined by Schatté, Gillham, and Reivich (2000), has been to identify pessimistic students, teach them optimism strategies, and then to monitor persistence and school-related success longitudinally. Samples of primary, adolescent, and university students, have been taught optimism skills including how to dispute negative thinking, how to reduce catastrophic thinking, and how to frame life circumstances based on the previously outlined optimistic dimensions. The results of nearly a decade of research indicates that students regardless of age and background can become more optimistic providing they work diligently on their skills over time (Seligman, Schulman, DeRubeis, & Hollon, 1999). Most recently, Seligman and colleagues have also started to deliver parallel optimism skills to teachers with the hope that optimistic pedagogy will increase the resilience within student populations. The concept of optimistic learning supported by optimistic teaching is intuitively appealing, though long-term results have yet to be fully evaluated.

Within elite sport, preliminary optimism research shows that instructor/coach education is a necessary starting point when the intention is to instill athlete optimism, persistence, and success (Schinke & da Costa, 2000a). Schinke, Peterson, and Seligman (2001) have recently developed a protocol to teach optimism to elite coaches and their athletes in the hopes of ensuring athlete resilience over the long-term. The module is based on the Penn Optimism Program developed by Gillham, Jaycox, Reivich, Seligman and Silver. Its emphasis is twofold: to increase coaching staff self- and team-awareness, and to teach optimism behaviors in response to elite coaching and athlete challenges. In terms of self-aware-

ness aspects, the module assists elite coaches in an understanding of their sport-related explanatory patterns, and how these in turn affect athlete behaviors. Self-reflection is measured through the use of Peterson, Semmel, von Baeyer, Abramson, Metalsky, and Seligman's (1982) Attributional Style Questionnaire (ASQ). Additionally, the coaches are asked to consider where their national team-related views originated, and where and how these views affect their respective team's overall optimism. A second aspect of Schinke and colleagues' (2001) module is aimed at teaching elite coaches and athletes how to explain previous performances and future expectations with optimism. It is hoped that the teaching of optimism skills through a formalized national coaching program, which is currently in progress, will improve elite athlete [and team] optimism and excellence reciprocally. Coaching staff as well as athlete optimism levels and performance outcomes will be monitored closely for the next three years through the 2004 Summer Olympics in Athens with three national teams. These initial steps in elite sport will undoubtedly lead to later developments addressing the contextual refinements necessary for athlete and team long-term excellence across levels of expertise, age groups, and sports.

Future Directions

The final question that needs to be considered is how to further optimism intervention and research within the domain of sport. There are a number of possibilities that might prove promising. One possibility is a deeper consideration along the vein of research that we have pursued thus far. Sport-specific optimism training can be provided to an ever-widening group of support people including elite athletes' parents, siblings, and sponsors. An increase in contextual optimism would enhance each elite athlete's solution-based thinking and

pursuit of excellence, while concurrently minimizing the inherited patterns of negative thinking that enable despondence. A second possibility is that sport optimism training be taken to different levels and age groups of athletes and the coaches who work with them. Educational interventions that target athletes during formative stages could at very least instill athletic resilience, if not a more pervasive resilience transferable to professional and personal domains. A third population and their support-staff that might benefit from optimism training are the sedentary adults beginning sport/exercise adherence. Perhaps optimism skills taught within sport and exercise settings might improve the general well being of adults,

while again suggesting resilience strategies that could be applied across contexts. A final group that we find particularly appealing is youth at risk and those who support them. Perhaps the teaching of athletic resilience to high-risk youth might reduce levels of morbidity, crime, violence, and dysfunction. In the place of negative life habits, an optimistic outlook might provide vulnerable youth, perhaps through midnight sport programs, with the appropriate skills to navigate through momentary adversities. For all groups, optimism training can buffer sport enthusiasts with transferable positive skills for the game of sport and the game of life.

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The Effects of Hypnosis on Flow States and Performance

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Abstract

This study examined the effects of hypnosis on flow states and short-serve badminton performance in 4 competitive female players. The investigation utilised an idiographic single-subject multiple baselines across subjects design combined with a procedure that monitors the internal experience of the participants (Wollman, 1986). The method of intervention utilised in this study involved hypnotic induction, hypnotic regression and trigger control procedures. The results indicated that all 4 participants increased their mean short-serve performance from baseline to intervention. Three of the 4 participants also increased their mean flow scores and indicated that during the intervention phase they had felt more relaxed, calm, determined, happy and focused when compared to the baseline phase.

Introduction

Elite athletes frequently report that a mental state described by Csikszentmihalyi (1975) as flow is an important construct underlying their successful athletic performances (Jackson, 1999). While there is much anecdotal and qualitative evidence supporting this conjecture (e.g., Ravizza, 1984), empirical evidence is rare (Jackson and Csikszentmihalyi, 1999). Quantitative research has lagged behind experiential awareness of flow given the inherent diffi-

culties of applying empirical methods to phenomenological experiences. Recently, Jackson and Marsh (1996) have helped to resolve this problem by developing a psychometrically valid and usable scale for assessing flow in sport and physical activity. Specifically, the Flow State Scale provides a global quantitative measure of the flow experience or single quantitative measures of nine distinct components of flow.

The components of flow identified by Jackson and Marsh (1996), include Challenge and Skill Balance, Action and Aware-

ness Merging, Clear Goals, Unambiguous Feedback, Concentration on the Task at Hand, Paradox of Control, Loss of Self-consciousness, Transformation of Time and Autotelic Experience. This scale has facilitated new interests in flow research (see for example Catley and Duda (1997) by allowing a quantitative examination of the relationship between flow and performance.

Most applied sport psychologists tend to utilise a variety of methods and techniques to assist players in reaching flow and maximising their athletic performance (Hardy, *et al.* 1996). Goal-setting (Kingston and Hardy, 1994), imagery (White and Hardy, 1995), relaxation (Jones, 1993) and self-talk (Weinberg and Jackson, 1990) are but a few of the techniques employed. These techniques are popular because they are effective and relatively simple to perform. They are also well established and their use in sport is supported by the research literature. To date most applied sport psychologists employ an educational philosophy in an attempt to teach athlete's these mental skills. However, the reliance on using an explicit learning approach, that is learning in which knowledge is accumulated with the learner being able to verbally explain or label knowledge, may have some adverse effects on performance. Indeed, Masters (1992) has shown empirically that golfers exposed to explicit learning strategies will perform worse in stressful conditions than golfers who learn skills implicitly. To explain his findings Masters (1992) has suggested conscious processing of explicit knowledge results in a disruption to the automaticity of a movement because participants are less able to invest cognitive resources into the skill. Support for this conjecture has now come from a number of more recent studies from the sport psychology literature (see for example Hardy, *et al.* 1996). Taken together, their findings imply that any performance

intervention may have an adverse effect upon performance during stressful conditions if it requires conscious processing. This conclusion might explain why there have been some inconsistent findings surrounding the use of Goal setting (e.g. Burton, 1989), Imagery (e.g. Mumford and Hall, 1985) and Self-talk (e.g. Dagrour *et al.* 1991). This conjecture is not meant to apply that we should stop using these techniques in applied sport psychology. However, we should be aware that they may have adverse effects on athletes who have a tendency to be over analytical about their performance when confronted with a stressful situation.

From the coaching literature, the ability of athletes to lower their critical logical conscious barriers has long been recognised as important in playing competitive sport (see Gallwey, 1974). If one takes the position that explicit learning or conscious processing thwarts peak performances, it follows that one must give athletes a different learning device. It may be advantageous if implicit or unconscious learning strategies are given to athletes rather than strategies that facilitate the control of behaviour through conscious, cognitive mechanisms.

Interestingly, Wolberg (1964) and later Taylor, *et al.* (1993) have suggested that hypnotic protocols may be a useful strategy for bypassing conscious processing. Research supporting this conjecture has come from a number of psycho-physiological studies showing EEG activity shifts from the left (analytical verbal and conscious side of the brain) to the right hemisphere (holistic, nonverbal, imaginative side of the brain) during hypnosis (see Gruzelier, *et al.*, 1991; Gruzelier and Warren, 1993). In spite of these findings research into the effects of hypnosis on athletic performance has produced mixed results. This is largely due to many of these studies lacking methodologi-

cal rigour (Taylor *et al.*, 1993). Whilst some contradiction is evident in the literature, it does seem reasonable to assume that hypnosis interventions may enhance performance, provided athletes can utilise the technique during performance. Recently, Pates *et al.* (2000) have suggested that hypnotic techniques may be implemented by athletes during an event with the use of trigger control techniques. Triggers are words, sounds, images or a natural part of a routine that one can do or think about in order to induce a response usually obtained during the induction phase of the hypnotic procedure. Unestahl (1983, 1986) has implied that sport psychologists may use two types of triggers for applied work. The first are 'Natural triggers' which are usually part of a normal routine (e.g. holding a racket) the second are 'artificial' triggers' which do not form part of a normal routine (e.g. a word). Unestahl (1983, 1986) also advocated the use of other techniques such as hypnotic regression. Hypnotic regression involves the reliving of an early life experience with no conscious awareness of any future realities beyond the time frame being experienced. It utilises a complete dissociation from any other reference to the present and as a result of the change in perception the rekindling of the participants experiences are more kinesthetic and emotive (Hammond, 1990). During the regression Unestahl (1983, 1986) conditioned positive emotions such as ideal performance feelings to a trigger that would allow access to the optimal performance experience during a future event. Hence when the trigger was initiated the conditioned ideal performance state was produced.

Although, Unestahl (1973, 1975, 1983, 1986) has only presented case studies and anecdotal evidence to support the use of these techniques in sport, recently, Pates and Maynard (2000) adopted Unestahl's tech-

niques using more rigorous methodological procedures. Specifically, Pates and Maynard (2000) utilized an idiographic single-subject replication-reversal (ABA) design to analyze the effects of hypnosis, regression and 'artificial' trigger control techniques on chipping performance and flow states in golfers. Their findings revealed that performance and cognitions associated with flow states were elevated using these techniques.

The current study will extend the work of Pates and Maynard (2000) by evaluating the effectiveness of a hypnosis intervention in facilitating flow states and performance accuracy in badminton short-serves. It is perhaps worth noting that this study broadens Pates and Maynards (2000) work in a number of important ways. The first is the analysis of a racket sport performance, which is rarely reported in the conscious processing or mental training literature. The second difference is the utilisation of a 'natural' unconscious trigger in the hypnotic protocol, and the third the use of a single-subject multiple baseline design which demonstrates the external validity of an intervention in the sense that the results can be generalised across participants.

It was expected that during hypnosis the player's best performance could be conditioned to a 'natural' trigger. It was then hypothesised that after conditioning, players using the 'natural' trigger would experience more intense states of flow and achieve improved accuracy in the performance of the badminton task. In the present study a 'natural' trigger was used because the researchers wanted to demonstrate the effects of a trigger that requires no conscious control. A single-subject multiple baselines across subjects design was deemed the most appropriate method to study the effects of the intervention because it allowed the

analysis of an intervention that cannot be withdrawn or 'turned off' (Hrycaiko and Martin, 1996). Based on the recommendations of Wollman (1986) and other researchers who have utilised single-subject designs (e.g., Lerner, *et al.* 1996; Swain and Jones, 1995), the present study also applied a procedure that monitored both flow states and the internal experience of each player.

Method

Participants

The participants were four members of a female University Badminton team located in the North of England. All participants were aged between 19 and 25 years with a mean age of 21.25 years ($SD = 1.6$). The participants were regular first team players with at least 4 years of competitive experience. None of the players had previous experience with hypnosis training methods. Prior to the study the participants were informed of the nature and extent of the investigation, and all agreed to participate.

Experimental Design

A single-subject multiple baselines across individuals design was implemented to examine the effects of a hypnosis intervention on flow states and badminton serve performance. This type of design allows participants to serve as their own source of control for the experiment (Barlow and Hersen, 1984; Hrycaiko and Martin, 1996). This format was also most appropriate because it facilitates the analysis of the effects of an intervention that could not by nature be withdrawn from the participants due to the use of 'natural' trigger control techniques (Barlow and Hersen, 1984). With this design data are taken across several participants concurrently. The intervention is then introduced to the first participant while the other participants remain on baseline. Then in a staggered fashion across the remaining participants, the intervention was

established. Specifically, the first participant was given hypnosis training after 4 baseline trials, the second participant after 6, the third after 7 and the fourth after 9. However, the intervention was only initiated when a stable baseline or a trend in the opposite direction of the change anticipated became apparent for each of the participants (see Hrycaiko and Martin, 1996). Based on the recommendations of Barlow and Hersen (1973, 1984) and Kazdin (1992) data was collected on 11 occasions over about 12 weeks.

Dependent variables

Badminton serve. The badminton short serve was selected as a criterion task because participants were familiar with the technique and it reflected an important component of their performance. It is also a good example of a closed skill. These are skills in which the environment is not changing and the performer can plan the movement well in advance (Schmidt, 1982). To maximize effort and motivation as well as provide conditions normally experienced during a competition, a prize was awarded to the player who displayed the best average performance score over 11 trials. Before each performance trial the scoring system and procedures were explained to each of the badminton players. Each of the participants were then asked to warm-up and perform ten practice shots at the target to familiarize themselves with the task. The participants used a regulation racket and feathered shuttles. All serves scored were legal according to the rules of badminton. That is, the shuttle had to be contacted below the waist of the server with the racket head below the hand (Poole, 1969). The short serve was assessed using a method adapted from Goode and Magill (1986). Specifically, in the right service court markings were drawn 10cm wide in the form of arcs at distances of 10, 20, 30, 40 and 50cm from the intersection of the

centerline and the short service line. The distances were scored 5, 4, 3, 2, and 1 respectively. Any shuttle landing on a line received a higher score; any shuttle landing outside the target area received a score of zero for that trial. The trial was terminated when all had completed twenty serves. A sum of the twenty serves was the score for each performance trial which lasted approximately 10 minutes, Flow State Scores and information on the internal experience of each player during performance were collected.

The reliability of the performance observations was assessed by comparing the judgements of two independent 'blind' observers, simultaneously measuring the target behaviour. The reliability assessment took place prior to the study and resulted in a correlation of 1.00 for the scores of the two independent observers.

Flow Analysis

In addition to the performance data, information on the frequency and intensity of flow experience was assessed using the Flow State Scale (FSS) Jackson and Marsh (1996). This 36-item instrument provides a quantitative measure of the nine dimensions of flow outlined by Csikszentmihalyi (1990). The dimensions measured by this instrument are: challenge-skill balance, action-awareness merging, clear goals, unambiguous feedback, concentration on task at hand, sense of control, loss of self-consciousness, transformation of time and autotelic experience. The internal consistency estimate for the nine FSS scales were $\alpha_M = .83$. For the purpose of this investigation a single global FSS score was collected from the four participants after each of the eleven trials. A global measure of flow was preferred in this investigation because of Jackson's (1999) contention that single factor approaches tend to reveal

complete information about the total flow experience. Alphas for the nine FSS scales range from .72 to .91 (Jackson, Kimiecik, et al.1998).

Treatment: The Hypnosis Intervention

The training of the participants in hypnosis took place immediately after the completion of the final trial of baseline testing and was divided into two stages. An investigator who had successfully completed extensive training in a variety of hypnosis techniques delivered the intervention. In the first stage of the intervention participants were encouraged to sit in a comfortable position and then were asked to focus on their breathing. Specifically, they were instructed to breathe deeply and to release air slowly while counting backwards from the number ten. They were then given a 15-minute session involving progressive muscular relaxation (PMR). The technique originally pioneered by Jacobson (1938) involved the badminton players tensing and relaxing parts of their body, whilst deeply inhaling. Suggestions asking the participants to contrast the differences between the tense and the relaxed muscles were also given. The researcher utilised Ericksonian hypnosis throughout the induction and the trance was deepened using a staircase technique outlined by Hammond, (1990). The staircase technique consisted of a journey, one step at a time, down a flight of twenty stairs. As the participants took the journey they were told to see each stair in front of them and feel the stair under their feet. At the bottom of the stairs they were told they would see a door, and beyond the door they would see a room with a comfortable chair. The participants were then asked to sit down in the chair and focus on a small cinema screen on which appeared a relaxing scene. At this point the participants were instructed to direct their attention to situations that were associated with relaxation, for example, the images of a

warm comfortable beach, or the sensation of floating in water. Throughout this stage suggestions were given to reinforce both the experience of the PMR and the deep breathing technique.

In the second stage suggestions were given to help the participants regress, and remember a polysensory experience of their best competitive performance. Specifically, they were asked to include visual, auditory, tactile, olfactory, gustatory, and memory of their best performance from an internal perspective. When a memory was accessed, a trigger was then introduced so an association was developed between the trigger and the variables responsible for the optimal performance. The trigger used was holding the badminton racket. The participants were then told to see themselves rising from the chair and proceed out of the door and up the staircase. As they ascended the staircase they were instructed to come out of trance and feel refreshed and alert. After waking from trance they were asked to access the ideal performance state using the trigger. Training was considered complete when the participants reported that emotions normally associated with their optimal performance could be experienced when they held the badminton racket.

Intervention Procedure

Based on Pates and Maynard's (2000) procedures, the hypnotic training was administered to the players in a small, quiet, and comfortable room and lasted approximately one hour. The training took place after the completion of the baseline trials. The training was composed of two stages: Stage 1-hypnotic induction, and Stage 2-hypnotic regression and trigger control. After the training, participants were asked to commit themselves to practice the techniques by playing a forty minute, audiotape recording of the 'live' session everyday,

over a seven-day interval between the baseline and intervention phase of the study. The time period for the training was based on the recommendations of Pates and Maynard (2000) and Pates, *et al.* (2001). In total the players were given one live session, and seven audiotape sessions before the intervention phase. To ensure participants had listened to the audio tape recording, the players were contacted daily and asked to listen to the audiotape in a quiet room in the presence of an experimenter. The quality of the participants' experience was assessed by examining the thoughts, feelings and cognitions immediately after each session.

Following this training, the players began the intervention phase of the design. The players were instructed to imagine the trigger (holding their racket) each time they attempted a serve. After each performance trial, flow and the internal experience of each player was assessed using the FSS and Practical Assessment Questionnaire. It should be noted that during this stage players were not under hypnosis. Instead, they were merely using the trigger conditioned to the way they felt during their ideal performance.

Practical Assessment

In order to provide information about the effectiveness of the intervention, each of the participants completed a practical assessment questionnaire adapted from Kazdin, (1992) and Kendall, *et al.*, (1990). The participants were asked the following questions: 'How did you feel during the performance?' 'What were you thinking during the performance?' 'Were there any outside thoughts distracting you?' 'Did you experience any problems?' 'What were your general beliefs about your performance?' and 'How much effort did you put into today's performance?'

Following the completion of the study, the participants were given a social validation questionnaire. The questionnaire was designed to provide information concerning the importance of the study and the effectiveness of the intervention. Specifically, the participants were asked the following questions: (a) Did you perceive the task to be important? (b) Were the procedures of the study acceptable? (c) Are you satisfied with the results? (See Hrycaiko and Martin, 1996).

Procedural Reliability Assessment

To ensure that participants received the same information throughout the study a number of strategies were employed. For instance, some of the sessions including a familiarisation session prior to the first data collection were conducted in a group. The sessions were delivered in a standardised protocol: (a) perform progressive muscle relaxation, (b) perform mental imagery relaxation, (c) perform staircase hypnosis induction, (d) perform hypnotic regression technique, (e) condition trigger to a flow experience, (f) have participants access their ideal performance state utilising the trigger, (g) have participants complete the FSS questionnaire, (h) to reinforce training give participants an audiotape recording of the hypnosis session (i) contact participants daily to check that they have played the audiotape recording of the training, (j) check that the audiotapes have been retrieved before the beginning of the second baseline, (k) ask if there are any questions, (l) copy questions down and answer them, (m) check understanding with participants. Verification that all aspects of the standardised protocol were consistently applied was obtained from an observer.

The internal experience of each player was monitored by asking each participant to complete a questionnaire after each testing

trial. This information permitted on-going assessment of the quality of the participant's feelings, thoughts and cognitions across the baseline and treatment sessions. The data was analysed by comparing the comments obtained in the baseline sessions to the comments obtained during the intervention phase of the experiment.

Treatment of Data

The performance scores obtained from the participants were plotted according to the accuracy of their attempts. An effect was considered to have occurred when at least one of the following criteria has been reached : (a) when baseline performance was stable or in the direction opposite to that predicted for the effects of the treatment, (b) the greater the number of times that an effect was replicated both within and across participants, (c) the fewer the number of overlapping data points between baseline and treatment phases, (d) the sooner the effect occurs following the introduction of the treatment and, (e) the larger the size of the effect in comparison to baseline ((Barlow and Hersen, 1984; Hrycaiko and Martin, 1996).

Results

Upon receiving the intervention participants 1, 2, 3, and 4 experienced an immediate performance effect with only a few overlapping data points between the baseline and the intervention phase. Specifically, participant 1 improved from a mean score of 18 during the first baseline to a mean of 28 during the intervention phase, participant 2 from 14 to 22, participant 3 from 9 to 25, and participant 4 from 15 to 27. The performance data for each participant is presented in Figure 1. The results suggest that the hypnosis intervention consistently improved short serve performance accuracy.

During the intervention participants 1, 3, and 4 experienced an immediate flow effect with no overlapping data points between the baseline and the intervention phase. Specifically, participant 1 improved from a mean flow score of 91 during the baseline to a mean of 128 during the intervention, participant 3 from 116 to 137, and participant 4 from 89 to 145. Participant 2 did not experience increase in flow. Indeed, there were many overlapping data points between the baseline and intervention with a mean score of 116 recorded during these two phases. The flow data for each participant is presented in Figure 2. The results suggest that the hypnosis intervention consistently increased the intensity of the flow experience for participant's 1,3 and 4 but had no effect on participant 2.

Practical Assessment Data

Upon completing the study, each of the participants was asked to respond to a practical assessment questionnaire. Participant's 1, 3, and 4 indicated that during the intervention phase they had felt more relaxed, calm, determined, happy and focused when compared to the baseline phase and experienced reduced concerns about performing and more control over their serve. In contrast participant 2 indicated that during the intervention phase she had not noticed improvements in performance because she was worried about the competition and was distracted by others watching her serve. Finally, participants 1, 3 and 4 but not participant 2 reported that they were satisfied with the results of the intervention and recognised that it had improved their performance.

Discussion

The purpose of this study was to examine the effects of hypnosis on the performance of short serves and flow states in badminton players. The results of this study indicate

that a hypnosis intervention consisting of a hypnotic induction, hypnotic regression and 'natural' unconscious trigger control techniques enhances performance. This finding supports previous research that found hypnosis is a useful tool for improving athletic performance (Baer, 1980; Liggett, 2000; Pates and Maynard, 2000; Schreiber, 1991; Unestahl, 1973; 1975; 1986). Three of the four participants also showed increases in flow during the intervention which suggests that in some players the intensity of flow in badminton may be increased using hypnotic regression and trigger control techniques. The results are clearly relevant to sport psychology practitioners because they suggest hypnotic training may increase personal control over flow and performance.

Perhaps the most important feature of hypnotic training that utilises 'natural' unconscious trigger control techniques is that once conditioning has taken place, processes important for optimal performance no longer need to be consciously controlled. This may lead to more attentional resources being available to the athlete, which may improve performance and allow flow to occur more often. Support for this conjecture comes from Masters (1992) who explicitly indicated that conscious control of a motor task disrupts automatic task processing and impairs performance. Clearly, the unconscious feature of hypnotic interventions is of value from an applied perspective as it provides the sport psychologist with a tool that does not constitute a conscious left hemisphere distraction for the performer.

Unfortunately, the mechanism by which hypnotic interventions increase performance and the experience of flow is not known. However, it is possible that hypnosis facilitates a shift from an analytical to a holistic style of thinking, which gives access to processes that are important for athletic performance (Crawford and Gruzeliar,

1992). Alternatively, the effect hypnotic interventions have on flow and performance may be best explained by Norman and Shallice's (1986) cognitive model of behavioural control, which appears in the literature on cognitive psychology and neuropsychology.

The Norman and Shallice (1986) model proposes that the cognitive system is comprised of a large, distributed set of specialised processing systems under the guidance of a two-tiered cognitive control system. In routine situations, behaviours may be controlled exclusively by the operation of low-level cognitive control structures or schemata. These structures or schemata are triggered by cues in the internal and external environment in accordance with a contention scheduling mechanism, which operates automatically without consuming attentional resources. This low-level of control is considered to be an automatic process, requiring, neither attention, awareness, nor volition for its operation.

According to Woody and Bowers (1994) hypnosis represents one situation where the supervisory system of control is inhibited, leading to the hypnotised individual's over-reliance on situational cues for determining subsequent behaviour. The resulting behaviours may then be perceived as occurring automatically and involuntary, because they have not been performed under conscious control (Woody and Bowers, 1994). This view has recently become particularly influential within contemporary hypnosis research underpinning the dissociated control theory view of Bowers (1992).

Interestingly, Hargadon *et al.* (1995) have suggested that the ability to become intensely absorbed in a given experience is another situation by which dissociated control might be induced. This suggests that

any absorbing activity such as participating in sport may inhibit the supervisory system of control, leading to the athlete's reliance on situation cues for determining behaviour. Under these non-analytical conditions, an athlete's perception of behaviour may be altered resulting in performance that is best described as flow. Flow states and hypnotic states may be perceived as similar because the cognitive mechanisms that bring about their existence are the same. Evidence for this view, is provided by Unestahl (1983).

The dissociative control theory of hypnosis is still very much in the early stages of its development, and researchers must be relatively cautious when attempting to draw any firm conclusions regarding its use as an explanation of flow as experienced by many athletes. However, it represents a plausible cognitive theory explaining the hypnosis/flow/performance relationship. Furthermore, while retaining its cognitive basis, it acknowledges that environmental factors play an important role in the flow experience. Thus dissociative control theory accommodates Csikszentmihalyi's (1975) model of the flow experience which described flow as the balance between skill (action capabilities) and challenge (action opportunities). Moreover, it is based on a model of behavioural control developed within cognitive psychology and, on this basis, offers testable predictions with which to assess its validity.

An important aspect of this study was that the single-subject multiple baselines across subjects design enabled the experimenters to be more confident, that the change in flow and performance scores were produced by the intervention and not some other uncontrollable variable. Indeed, the introduction of the intervention in a staggered fashion and the demonstration of an effect when the intervention was introduced, gave a very

clear demonstration that the intervention had some degree of external validity, in the sense that the results could be generalised across all three individuals. Additionally, the qualitative data revealed that during the intervention phase, three of the players were more relaxed, calm, determined, happy and focused. Three of the participants also reported having more control and reduced concerns about performing. These findings are entirely consistent with the research of Crawford *et al.* (1996), Damaser *et al.* (1963), Kihlstrom (1985), Kirsch (1994) and Wadden and Anderton (1982) who have clearly all demonstrated the positive effects of hypnosis on emotions, thoughts and perceptions.

It should be noted that the observed changes in flow were not always consistent with changes in performance. Indeed, during the intervention Player 2's performance scores improved but her flow scores did not. This finding is interesting since it is consistent with Jackson and Csikszentmihalyi's (1999) observation that high performance can occur in the absence of high flow.

There remains a possibility, of course, that the improvements in both performance and flow scores are an artefact of participant and experimenter bias. Indeed, neither the participants or experimenter were blind to the outcome and so experimenter expectations or the demand characteristics of the experiment could have affected the results. There also remains an issue of a possible Hawthorne effect, the change in perform-

ance that occurs merely as a function of being in an investigation (Drew, 1976). Scrutiny of performers in a single-subject experimental design might heighten this effect. Drew (1976) observed, however, the effect tends to decline as the participants become acclimatised so the extended length of the single-subject study could aid in controlling this effect. A further weakness of this study is the experiment may not generalise to game situations. Indeed, during competitions it is rare to attempt short serves without the pressure of an opponent. However, performing the task under competitive conditions strengthens the ecological validity of our findings.

In summary the present findings suggest that the intervention consisting of a hypnotic induction, hypnotic regression and trigger control techniques may enhance flow and the performance of short serves in badminton. Also the evidence suggested that hypnosis affects emotions, thoughts and perceptions. Further research is required, however, if hypnotic interventions are to be accepted by the sports and exercise science community. Specifically, more ecologically valid and group-based research methods would contribute to the knowledge base. Additionally, it should be recognised that the distance the shuttle passes above the net is yet another important characteristic of a badminton short-serve performance and should be considered when short-serve performance is examined in future research studies.

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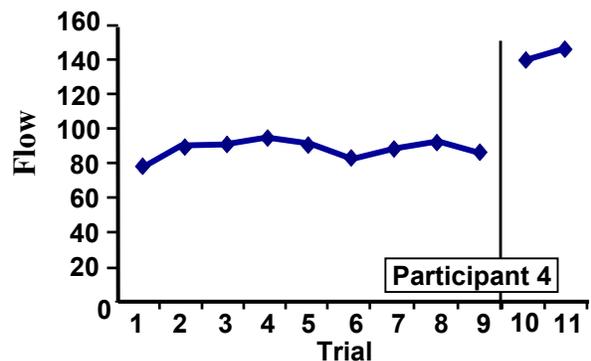
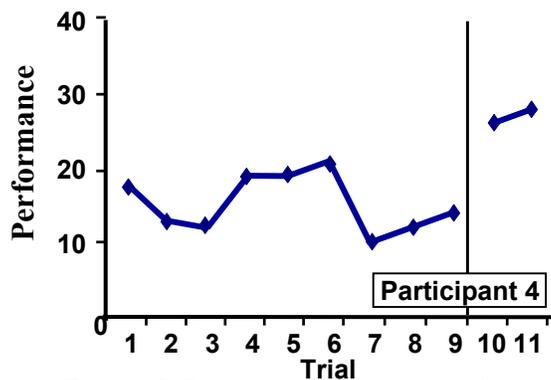
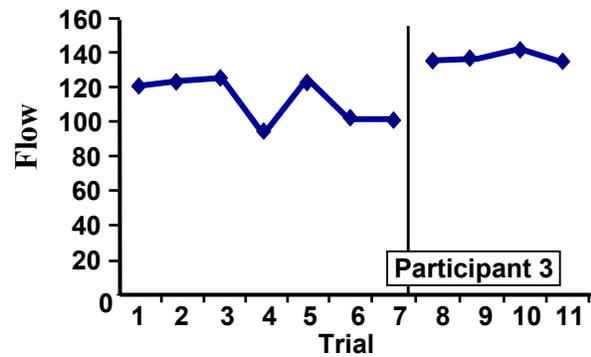
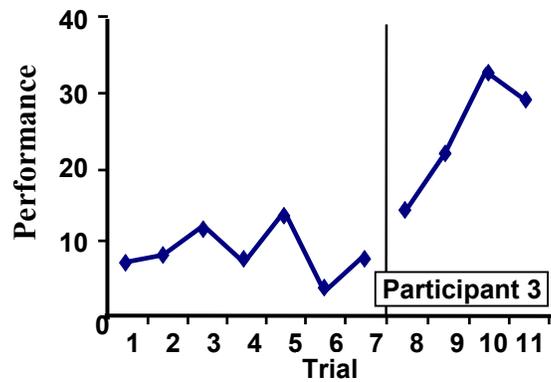
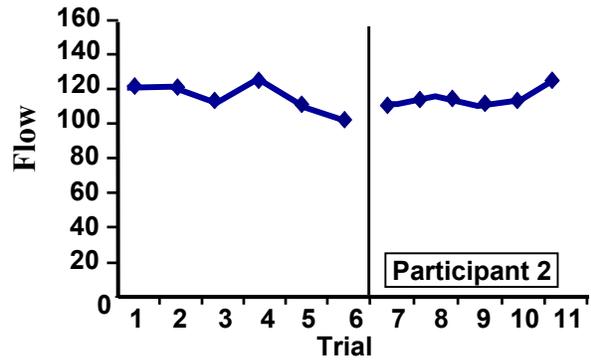
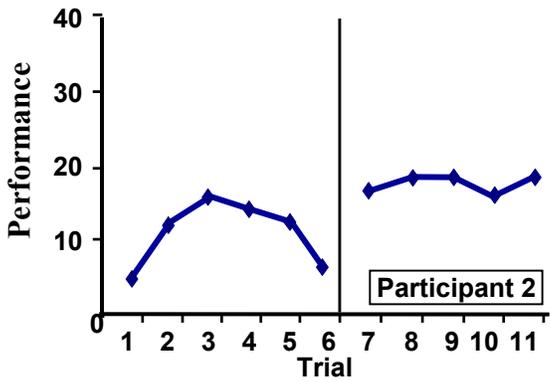
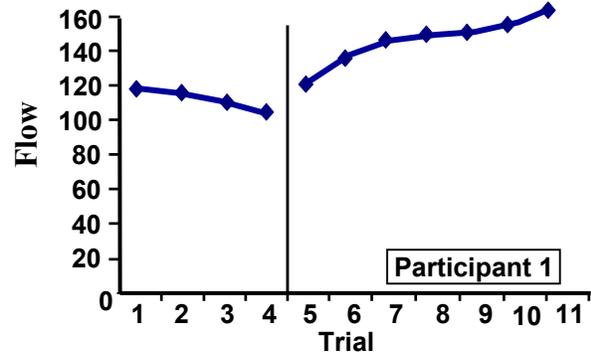
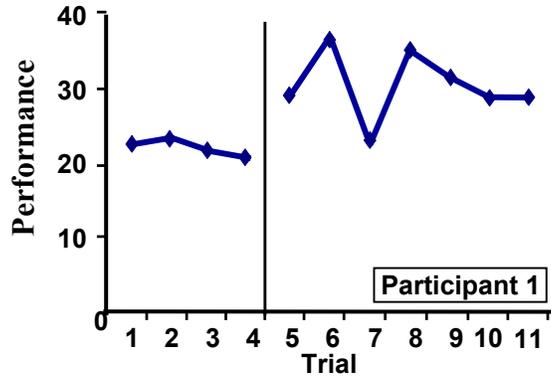


Figure 1. Performance accuracy for each participant on each trial.

Figure 2. Flow scores for each participant on each trial

Mental Training for Pain Patients

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Abstract

Mental training was used as a treatment in connection with musculoskeletal states of pain in the back, neck, shoulder, lower part of the leg, with 111 patients at the orthopaedic clinic in Helsingborg, Sweden. The training was based on cognitive behaviour-therapeutic methods combined with stress management and auto-hypnosis. An evaluation was made by means of a visual analogue scale (VAS) on 10 variables and by measuring the sicklisting frequency (i.e. sick days that kept patients away from work). Comparisons were made with an age-matched control group from the regional social insurance office. A one year follow-up showed significant improvements on 7 variables and the sicklisting frequency was decreased by 27%.

The expert report of the National Swedish Board of Health and Welfare on treatment of chronic pain states that psychological and pedagogical methods with a cognitive and behaviour-therapeutic concentration in combination with activating physiotherapy/pharmacology are of great value and that the effects of these methods are well documented (SoS-rapport 1994:4). Östergren (1994) conducted a literary survey on stress management techniques applicable to pain behaviour therapy and concluded that methodological developments in this area have led to a successful stress management.

Systematic patient education programs have been developed and are very often referred to as mental training. The basic elements include muscular and psychological relaxation training, self-confidence training, goal pictures and creative problem solving techniques. At the orthopaedic clinic in Helsingborg, a mental training program

which followed these methods was introduced to patients with chronic pain under the guidance of a behaviourist, who is a qualified mental trainer.

Mental training is based on the fact that man is a thinking, acting creature able to develop. The training is meant to initiate a positive process of development, in which the strengthening of the self-confidence plays a very important part (Károlyi & Jensen, 1987). Bandura (1977) is using the term self-efficacy for the self-confidence strengthening insight that "you can do what you did not think you could before". By gradually developing physical or psychological abilities you give positive feedback and encourage further tries, resulting in the creation of a positive loop of feedback, and more personal control. Gentry & Owens (1986) emphasize the importance of a secure and pedagogical group setting

for this training, as well as the importance of raising the bar step by step.

Patients And Methods

At the orthopaedic clinic in Helsingborg, Sweden, pain patients were taught mental training techniques during the period 1991-1994 with financial support from the regional social insurance office. The course was taken by 111 patients (32 men and 79 women) with an average age of 45 years (from 19 to 68). Most of these patients were referred by the orthopaedic clinic and the regional social insurance office, and a small number came from various health centres. Forty-nine additional referred patients never started the course or attended only a few sessions and are therefore not included in this report.

The types of pain or pain localization experienced by these patients is presented in Table No.1.

The average time on the sicklist (absent from work) before the course was 21 months. Seventy patients (63%) were reported sick (and as a result were not working), 11 (10%) had sickness allowances, 8 (7%) had sickness pensions and the remaining 22 (20%) were working people and old-age pensioners. Almost everyone had tried other types of pain treatment like physiotherapy, analgesia, TNS, acupuncture, pain school or pain rehabilitation programs but they were unsuccessful in relieving their pain. This course which focused on mental training was a "last chance" for them. The course was conducted at the teaching division in the hospital of Helsingborg. The overall orientation focused on promoting a positive attitude and active life in spite of the pain. The leader of the course was a behaviourist educated in mental training.

The course content reflected Steinberg's (1987) pedagogical model and Uneståhl's

(1988) sport psychology model. A variety of educational approaches were used including videos, and a great number of neuropsychological exercises respecting the principle "what I do I understand". Table No. 2 presents the main content items experienced during the course.

The training content was based on Uneståhl's (1993) basic mental training program on audio cassettes (see table No.2). The patients were asked to train daily with these cassettes at home. The cassettes were combined with Uneståhl's books "Jo, du kan" (Yes, You can - 1993) and "Motivation - livets kärna" (Motivation - the essence of life - 1984).

Table No. 1

Types of pain reported by participants in mental training program

Type of Pain	Number of patients
Myofacial pain at varying origins	20
(ex. muscular rheumatism)	
Back pain	19
(ex. lumbar pain syndrome, dorsal insufficiency)	
Back and leg pain	11
(ex. sciatica, herniated discs, spinal stenosis)	
Neck and shoulder pain	12
(ex. overload damages, tendinitis, rhizopati)	
Posttraumatic pain	11
(ex. whiplash)	
Pain in the lower extremities	11
(ex. pelvis, hip, meniscus)	
Arm and hand pain	4
(ex. epicondylitis, carpal tunnel syndrome)	
Varia	15
(ex. stress related tension pain)	

Table No. 2**The principal elements of the course**

Element	Theme	Audio cassette practice
Basic course:		
1	Background and principles. Information on the training material.	Muscular relaxation training.
2	Stress and stress management.	Continued muscular relaxation training.
3	Right and left brain hemisphere. Creating a mental room in the mind.	Psychological relaxation.
4	Altered states of consciousness. Auto-hypnosis. Goals and subgoals.	Auto-suggestions in the mental room.
5	Self-image and self-confidence.	Self-confidence strengthening auto-suggestions.
6	Goal direction and goal pictures.	Continued self-confidence training.
7	Goal programming. A former course participant talks about	Goal picture programming. his/her own training and experiences.
Continuation course:		
8	The resources of the subconscious. The connection between body and mind.	Creating more to life.
9	Body language. Subpersonalities. The language of the dream.	Creating an "inner guide".
10	Creativity. Solution of problems.	Techniques for solution of problems.
2 months' pause. Home training only.		Creativity training. Humour and joy. Humour and creativity Brainstorming. Revival of previous successful states of consciousness. Pain training.
11	Humour and health.	
6 months' pause.		
12	Exchange of experiences. Survey of the course.	

The course leader also put together 60 pages of training and discussion material for the participants in this course. The educational experience was divided into a basic course consisting of 7 sessions of two hours each and a continuation course consisting of 3 two hour sessions. Then there was a pause of two months followed by another two hour session and finally a follow-up session six months later.

A visual analogue scale (VAS) was used for patients to rate 10 variables: basic tension, physical capacity, stress threshold, power of concentration, self-confidence, creativity, anxiety tendency, state of mood pain in general and pain at its worst. The participants were verbally instructed on how to fill out the scale and completed it on three separate occasions: baseline, after 3 months and after 12 months. On the two follow-up occasions after baseline they were not allowed to see the ratings from their previous VAS-test.

Correctly used VAS-scales are considered to be reliable, valid and sensitive (Gift (1989). Wewers and Lowe (1991) emphasize the intra-subject character of the VAS-method and that scales shorter than 100 mm tend to give greater variances of incorrectness. For this study a 200 mm scale was used. Linton (1986) refers to reports stating that VAS is sensitive to changes and correlates well with verbal scales. His conclusion is that changes on the VAS-scale must exceed 10 mm in order to be clinically meaningful.

The VAS-measurement was supplemented with a comparison of the sicklisting frequency before the course and one year after completing the course.

Results

The total group pain patients undergoing mental training showed significant im-

provements on 7 variables, i.e. basic tension, stress threshold, power of concentration, self-confidence, anxiety tendency, state of mood and pain in general. See table No.3. This table shows that the greatest improvements were based on an enhanced stress threshold, a strengthened self-confidence, a higher level of mood and a decreased anxiety tendency.

It is interesting to note how the stress threshold during the follow-up after 12 months had increased by another 0.5% compared to the follow-up after 3 months. This is also the case with self-confidence, which increased from 9.5 to 11.0%, and the anxiety tendency, which decreased by another 7% from the 3 month follow-up to the 12 month follow-up. The experience of pain in general also decreased by 3.5% between the two follow-up measures and the power of concentration increased by another one per cent. The sicklisting frequency decreased by 27% within the group ($p < 0.001$) and by 19% compared to a matched random sample, taken by the regional social insurance office ($p < 0.01$).

Discussion

The effects of mental training on a cortical level are already known since auto-suggestions can create an increased concentration on positive goals. Increased self-confidence and a better self-image can result in decreased anxiety, stress and pain. Melzack (1965) and Wall's (1969) so called gate-theory created an increased understanding of the neurology of the pain and a theoretical grounding for acting on pain through hypnosis. The theory describes how the interaction between different types of nerves can effect the pain signal on its way to the brain. By this mechanism psychological factors can influence the experience of pain through distraction, placebo and hypnosis.

Table No. 3**Results**

Variable	mm*	Pre n**	Follow-up						P
			3 months			12 months			
			mm	%	n	mm	%	n	
Basic tension	131	102	113	-9,0	81	115	-8,0	90	<0.01
Physical capacity	78	101	91	+6,5	81	90	+6,0	90	NS
Stress threshold	83	100	104	+10,5	80	105	+11,0	89	<0.001
Power of concentration	95	102	108	+6,5	81	110	+7,5	90	<0.05
Self-confidence	105	102	124	+9,5	81	127	+11,0	89	<0.001
Creativity	109	98	114	+2,5	78	112	+1,5	86	NS
Anxiety tendency	104	100	95	-4,5	81	81	-11,5	90	<0.001
State of mood	93	99	123	+15,0	81	120	+13,5	88	<0.001
Pain in general	133	100	126	-3,5	80	120	-6,5	89	<0.05
Pain at its worst	165	99	155	-5,0	78	148	-8,5	87	NS

*Mean VAS Score on 200mm scale

**Number of Respondants

% Percent up or down.

The long-term goal must be that the results achieved by means mental training or behaviour medical methods become permanent - a new life style for life, as Lispers & Nygren (1992) express it. A regional association for mental training has been established in order to facilitate follow-up activity. Ten of the former pain patients from this study are now studying mental training on an academic level. Continued research and

development in this area may lead to mental training becoming just as natural as physical training.

The results of this study provide additional support for the capacity of mental training to positively influence factors that are essential for a high quality of life, including stress reduction, self-confidence, anxiety control and level of mood. Audio cassettes were

found to help simplify and reduce the cost of this type of intervention process. Finally, even though our results persisted when they were followed up one year later, the devel-

opment of methods for their continuance and stability must be regarded as the most important part of the development work.

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Coping with a Negative Coach Experience at a National Training Camp

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Abstract

Centralized training camps are occurring with more frequency at the national level in Canada and elsewhere in the world. Despite the emerging role of centralized training camps in athlete and team preparation, our understanding of the experience of athletes at these types of camps is limited. The purpose of this paper was to present a detailed account of how one female national athlete of a team sport experienced the activity of a six-week centralized training camp. More specifically, the questions examined the process of the experience for this athlete, the strategies she used to cope with some difficult coaching challenges at the camp, and the meaning emerging from her experience.

As a prelude to a larger, more comprehensive study, this paper presents the profile of one participant who experienced the activity of a six-week centralized training camp. The participant's story focuses on the day-to-day realities of her experience at the camp and the meaning she made from that experience. The profile begins with a background narrative of the participant's life history in sport. The underlying goal in presenting this profile is to present a contextually rich description so readers can make connections between their own experiences and that of the participant, and to hopefully stimulate more positive experiences for athletes at training camps, especially with respect to coach – athlete communication.

Nathalie

At the time of these interviews, Nathalie was 28 years old and had been involved with the national team for eight years. Previously, she had attended numerous training camps, however only two of them had extended longer than one month. She worked full-time for a company that organizes an annual sporting event catering to both recreation and elite athletes. She took a leave of absence from the position to attend the centralized training camp in this study.

Life History in Sport

Nathalie first started playing her sport when she was five years old but in the beginning it was not her number one sport:

I grew up always drawn to sport in some way shape or form. I started with [different] teams when I was in kindergarten. Even though I was playing a bunch of different sports throughout grade school, squash was always my number one sport.

Nathalie described her early self as, quite shy and quiet. I enjoyed small groups and I don't think I exuded a lot of confidence at that point. If you took a picture of me at that point, you would probably see me with my head down and rounded shoulders.

Nathalie was very successful at squash and competed at the national level and made the junior national team. She really enjoyed the individual nature and competitiveness of the sport and she developed some solid friendships from the experience. She also indicated that her squash coach had a positive impact on her even though he wanted her to choose squash as her main sport:

He taught me a lot as far as individual strengths. He was positive. He probably would have been a lot stronger with me if he knew that squash was my number one sport. He was always disappointed in the fact that I played other sports as well, but I think in his heart, he knew that I was never going to be squash player. I just enjoyed other sports too much to focus on one. I wouldn't have enjoyed it.

Nathalie competed in a number of team sports during her elementary and high school years but "none emerged as any more important than the other." It wasn't until grade 12 that the sport she now plays started to emerge as an important one:

In the summer before my grade 12 year, a younger team that was a far better team than mine asked me to come and try out. I thought this is the big time. Even though this team was younger they were a lot better and in a stronger league. I made the team and my skills developed and I decided I really quite enjoyed it. I kept improving with the sport and ended up being an MVP at a provincial competition and we also won the provincial championships.

It was at the provincial championship where Nathalie first became aware of the provincial program, "I asked the coach about the provincial team jackets I saw around. What team are those girls from? He said those are provincial team girls. And I'm like well how do you try out?" The coach told Nathalie the times of the provincial trials; she went and tried out for the Under 18 provincial team. Nathalie made the provincial team that year, which she credited to the provincial coach taking a chance on her athleticism rather than her skill in the sport, "I guess the coach saw a green player in an athletic body and chose me for the team." It was that summer with the provincial team when Nathalie was identified by the national team coach at the Western Canada Games competition and asked to attend a camp, "I guess I kind of flourished that summer." She decided to attend her first national team camp even though she still considered squash her number one sport.

Nathalie described her first national team camp experience as follows:

I absolutely loathed [the camp]. I hated every minute of it. Training twice a day and the coach was a tyrant and I didn't know quite how to take him. It was tough training coming from my youth player [back-

ground] and not knowing really what to expect...so I wasn't physically nor probably mentally prepared for what a training camp would bring. I came from a really fun, positive experience with the provincial girls and then you get thrown into [that]...You just count down the days....I didn't really know anybody at that time. Everybody is interested in making the team so it's a very individual experience. You might be competing with that person for a spot not that I was competing with anyone at that point. I just wanted my own bed. It's not a warm experience and I don't think the coaches really helped that either.

Nathalie was not selected for the team; however, she continued to balance her involvement in both sports, but the challenge became increasingly difficult. She really started to feel the pressure to choose:

The National coach said if you want to become a player on this team you have to commit solely to this sport and I was like okay but I didn't quit squash. Squash people were saying you have to move to Calgary in order to compete at our high performance center in order to move on. All these people were tugging me in different directions.

Trying to balance both sports, Nathalie found herself going from one event to the next, “I had just competed and won at the nationals for squash and then I was on a plane back home to go to Florida for a national team camp.” Nathalie did not feel prepared for the camp physically so again her camp experience was not that positive, “It was a miserable experience at the training camp.” However, this time she made the

team and traveled to a competition in Central America. That experience was equally as challenging for Nathalie, “It was just horrendous. A lot of people got sick, including me.” As the pressure to choose between the two sports became increasingly more difficult to manage, Nathalie responded to the pressure in a way she described as “surprising”, “I decided to go away for a year. I was having so many tugs between the two sports I thought, I'm just not going to do either.” This decision ended up being fairly significant for Nathalie because during her trip, she had a cycling accident, badly injuring her knee, “I ended up ripping my knee open...They stitched me up...with dirt and gravel still in my knee. Eventually, I received the infection causing gangrene...and I almost lost my leg.” In essence the injury actually helped Nathalie make the decision between her two sports, “I just made the decision at that point that squash was perhaps not the most fun and probably harder on my injured knee so I just slid into [the sport I play today] without much of a decision.”

Nathalie also played her sport at a Canadian University. The first two years she described as “a real blast”, but her subsequent years were more challenging. Her university coach and some of her teammates asked her to take on more of a leadership role to combat some of the other not so positive personalities on the team. The challenge was difficult and the added responsibility came with resistance from a few of the other players. Nathalie recalled one particular instance that highlighted the resistance to her leadership role, “It was the first time I was ever told while playing to fuck off...and I was mortified. I never swear at people. I just couldn't believe it.” The experience ultimately contributed to Nathalie as a person, “Somebody handed me the role, saying we want you to take more of a leadership role. I thought, okay I'll try and

work on it and I did...I think [through that] the playing personality came on and the leader in me came out that wasn't there before.”

Nathalie's cycling accident also made her re-evaluate the effort she was putting into her academic opportunities and challenge her confidence in the area:

I wasn't really confident in myself as far as school was concerned before I went away and had that little accident. After I came back I realized that I had been sort of cheating myself as far as not really putting effort into school. So once I started to do that my confidence gained. I'd gotten into university just doing what I needed to do and then in university I'm like, if I get sixty percent I'll be okay. Whereas when I came back anything under eighty percent was so unsatisfactory...I think my first two years at university I was just not into school or even my sport but just into having fun and going drinking with friends.

Nathalie experienced a number of successes in her sport while balancing her national team and community involvement with her university team. She won a couple of national university competitions with her team and she attended the world university games with the Canadian team and won athlete of the year for her university in the same year. On the world games team, she met a woman who is still one of her closest friends today. She described close friendships with teammates as something that is quite unique for her even though she has lots of fun and really enjoys her teammates:

In sport, I wouldn't consider a lot of my teammates good friends. It's like high school, you are there because

that's what brings you together, not necessarily because you are drawn to each other but there was something between Megan and I that clicked...It was just wonderful to get to know her and she developed into one of my closest friends today.

The University games, themselves, she described as unique and similar to an "Olympic-type event" with a number of different sports and countries in attendance.” Two elements defined that experience for Nathalie. First, she began what was soon to become a long trail of injuries, “I tore my quad...you will find out later that's a bit of a running theme. I'm constantly injured.” Second, she had some challenges with the national team coach, “For whatever reason the head coach didn't like my style. She would choose me for all these teams but would then kind of be hard on me. I don't know if it was her intention to make me stronger but I didn't need the strengthening.”

Nathalie's experience with the national team continued with more training camps of both a short and long duration. Nathalie's perspective on training camps was fairly consistent throughout:

I never really found training camps that much fun until later. I used to hate getting letters in the mail, thinking oh I've been invited to this camp. Oh my god, here we go again. It's very regimented and I'm more of a relaxed person. That military sort of schedule is not for everybody.

She did remember one training camp that was quite enjoyable. They were preparing to qualify for the world competition:

We were in [one city] for quite some time. We got to choose our room-

mates. We were living in apartment style residences for about a month. It was the most freedom we'd ever had and probably the happiest the team has ever been as far as flexibility. Once you'd done your training you'd go off and into your own lives. Everyone was located in the same area but you could still have the freedom to do whatever -- lounge, make your own dinners. That was a fun experience.

The team qualified for the world competition the following year and that fall Nathalie's mother was diagnosed with cancer. So the next year was extremely challenging for Nathalie as she tried to spend as much time with her mother as possible and still train with the national team as they were preparing. The whole experience started to make Nathalie examine her values and what was important in life:

A lot of the national team preparation was in the [city where I lived] but the team would travel to Europe and Asia. I didn't travel with them. When the team was here I would be doing three hours of chemotherapy with my mom and then going to national team training after. I would listen to people saying this sport is life and death and I was just like, give me a break. No it's not...That kind of changed my perspective on sport and what was really important.

Nathalie attended the world competition which she described as "such a bad experience because we underachieved." When she returned she made some choices based on her mother's illness and also her own needs. She quit her old community team and started a new team, which provided her with a chance to play locally and minimize travel

time to and from practice. Nathalie was a bit disappointed with some of her friends at this time and their reaction to her choices:

I was sort of disenchanted with the world I would say, especially with people from my sport who claimed to be your good friends. They didn't really ask or maybe think to ask what I was going through. Some had bitter feelings because I left the community team, but I didn't see driving two ways for 45 minutes as being paramount to my life. I thought it was a waste of time. Time I'd rather be spending with my mom.

Over the next year Nathalie balanced her involvement with the national team with looking after her mother:

My mom and I just hung out and I looked after her except when I was away with the national team. I spent my entire days being with her and I would have done the exact same thing for 10 years if I could have had that opportunity. Sport was not important. I didn't need it...She passed away that October.

During that same period, a new coach was named to the national team and Nathalie described his involvement as "breathing new breath into [the experience]. It was just more fun...Maybe I bought into it a lot more...Maybe I wasn't seeing other stuff and how he was treating other people. I certainly enjoyed the experience."

After her mother passed away, Nathalie experienced a number of injuries related to her knee. She acknowledged the mental impact that her mother's death had had on her focus and the role that played in her injuries during that period:

I was still focusing on my mother's death and I think when you're a slight fraction behind mentally, physically your body can't really keep up and that's when all my injuries occurred...I injured my knee that spring and then went out with [the national team] in the summer and blew out my ACL (anterior cruciate ligament); a near complete tear. I then saw a surgeon and he said to just rehabilitate it. In October I ended up completely tearing it. I had surgery in December and then hurried back from that and fractured my knee. So that was the beginning of the whole knee saga. I think it's how he demands his players to train...Eventually it takes its toll. On me it certainly did. But it was a fun experience nonetheless.

Nathalie coped with the injuries and developed both awareness and skills in dealing with these types of situations. Her process involved normalizing injuries by viewing them as "just a part of an athlete's life" and seeing the "small amount of depression" that comes with them as a natural part of the process. She was also aware of how people's identities can play an important role in how injuries are dealt with:

For a lot of people they define themselves by their sport. I'm Suzie Smith and I'm a rugby player. I don't consider myself one of those people. I think you can have a healthier perspective if you do not define yourself by what you do. So I just say well this is something I have to deal with. I just take one injury at a time. I'm very short-term goal oriented. I set my goal for that day or that week and then accomplish it, feel good about it and move on. I wouldn't be

disappointed if at week one I can't walk because that's too depressing. You just take off little bites.

Nathalie's role on the national team was also beginning to change. Her teammates viewed her, as did the coach, as one of the leaders or veterans on the team. As the team struggled with issues surrounding the coach, Nathalie was asked to lead some of the discussions. Her university leadership experience played a role in her ability to take on this challenge as did her life experiences:

I was more comfortable with myself as compared to with my university team and I was able to be that role and not be timid or quiet. Plus I'd been through a different experience than probably most of the players so I was less disturbed by what was going on because in the big picture it didn't really mean that much.

Nathalie's rash of injuries continued and she ended up missing the next world competition qualifier because of a deep bone bruise that can be "career ending for many athletes." At this point she took the advice of the doctor, taking time off, modifying her training, and thinking less with heart and more with her head:

I started doing what activities I could. I would be on the stationary bike for two hours at times just doing what I could to strengthen it. Four months from the camp, the doctor said continue to listen to your body, but try and play...I totally changed my training because he said the impact activities are the most damaging. So I did a lot of biking and didn't do running. I don't think the National coach fancied that.

This is Nathalie's experience of the six-week training camp.

Nathalie's Profile

I was coming off a serious injury so a lot of my preparation was ensuring that I was physically ready for the camp. I was attending physiotherapy [a lot]. As far as work was concerned, I had to arrange my job. I took a leave of absence. They are fairly understanding. One of the bosses used to compete with the track and field national team. I also had to arrange the household and then the care of my grandmother.

I really didn't know personally how my body was going to hold up because of the [type of] injury that I had. I had a lot of doubts about how it would hold up with two to three training sessions a day. Leading into the training camp, the coach had basically said 'all I want you to do is get yourself ready to play. I don't care if you train once a day', but, I didn't really find that reassuring. It conflicted with how I feel about always going out there to prove yourself.

I was having problems sleeping before the camp, and I had injured my knee competing at provincial tournament the day before. So, I was pretty anxious as far as that was concerned because I wasn't really sure how my knee would hold up. But I was looking forward to seeing people, and the fitness testing on the first day doesn't really bother me. It's like cramming for an exam - once you're there, you're there. You come in with all you've got. You just go out and run, it doesn't really faze me that much.

In the morning, we all get up as a team. Everybody's woken up at a certain hour. It was pretty early, like 7 o'clock in the morning. Breakfast is served at 7:30 and I hate eating breakfast that early in the morning. We then start training right after. So, 45

minutes after ingesting your food, you're supposed to be out there warming up, and I prefer a couple of hours in between eating. At any rate, you start to walk towards the practice facility at 8, then get ready to play.

We finished the first training session and then we had a sport psychologist come in. I was very hopeful because I think it's an essential thing at a higher level to have that type of mental training fulfilled. I didn't really learn anything from them actually. There were a couple of sessions where I thought, yeah there's some quality stuff there, but it was mostly theory based and, I figured, if you were taking a university course it would be very valuable, but we had very little time and they were not practical enough. That was a big disappointment.

Then we would go on to lunch. I would spend a lot of time at physiotherapy. Then we would get ready for the next training session that afternoon. Dinner would be right after our training session. The evenings would usually be free, although the coach would often stick a meeting in there somewhere. They could be either individual meetings, where the coaches would tell you where you stood, or there could be team meetings. Physiotherapy was always there for those who needed it, so there wasn't a huge amount of down time even though the coach claimed there was.

The coach treated training as more of a 9 to 5 job, but some of the players joked that it was a 5 to 9 job. Also, on Tuesdays and Thursdays there were 3 sessions a day. So, in the middle of the day, another technical session was squished in. It would be a light session, but it would still add up, you know, you're still there pounding your body somewhat.

The training sessions, in hindsight, were a waste of time, but at the time, I would have bought into anything. I was there for the team. A lot of the sessions were very technical, but not really game specific. They weren't necessarily physically taxing, although I found them to be because every time I would move quickly or reach out, I would re-injure myself. But they weren't extraordinarily difficult. Sometimes I think we just did training for the sake of doing training. Tuesdays and Thursdays were harder days because they were fitness days.

The first two days of any camp are always high anxiety. I find it's a huge melting pot to start, but as time goes on, players tend to separate themselves. I don't compare myself to other players. I'm just very self-focused on what my body is saying. Of course, I read cues from the coaches, but I think everybody does that. I don't sit there wondering who the four cuts will be, I assume that I'm going to be one of those cuts, and then try and fight to prove myself. After the first two days of training camp, I was really concerned about my knee, and the doctors had told me to listen to what my body was saying. It's a big shock to get thrown into a camp situation where you're training 2 to 3 times a day, and I found it especially difficult.

For me, physiotherapy at the camp was a bit frustrating. I found that there wasn't a lot of hands-on treatment. Instead, I was hooked up to a machine - it's very much a routine that way. So I felt very constrained by the situation. I found it difficult and an enormous waste of time because the time that might have been spent stretching, resting, or sleeping was constantly soaked up by physiotherapy twice a day. I mean, it was a fun atmosphere because people would hang around and talk and the physiotherapist was very nice. I spent a lot of time with her.

The coaches brought a stationary bike to the practice for me. I had sort of demanded that I needed the equipment. I spent a lot of time warming up on the bike, and if I wasn't involved in practice, I would bike the whole practice and then watch what was going on in practice. But I got the sense, at that point, that the coaches saw the bike as a weakness. For the physiotherapist and myself, it was a long-term way of helping me heal. The coaches saw it in terms of my incapability to heal short term, which wasn't really the case. I was just trying to cover my bases so that I could last for the long term. As it turned out, they did see as a weakness, which made me practice a bit differently, and which probably led to more injuries.

In my individual meeting, the head coach suddenly changed his original position of, 'I don't care if you only practice once a day, I just want you to be able to play, you're a valuable member of this team' to 'you may not even make this team', at least that's what he led me to believe. He didn't think that I was going to last the whole time and, eventually, he wanted to see me training two and three times a day. So his thinking changed drastically, so I thought well, that's fine, I'll go out and practice two to three times a day and hopefully my body will hold up. I knew I could do it; it just wouldn't be the most logical thing to do to my body. Some of the players recognized that and were upset. I don't think I was in the group that was going to be cut; I really thought that I had something to add. And the coach denies that that's basically what he was telling me. But I'm very introspective and I try to read, maybe to a fault, into what they're trying to say and that's how I saw it.

After Friday evening, we were basically free until Sunday afternoon. So that's a good mental break, which I think is necessary. You would work hard all week, achieve

small goals, have something to look forward to, and then start the cycle again. One weekend, I came back home, another weekend I went away with my friend and a couple of girls from the team. I think it's important to get away from that atmosphere because then you're not trapped in the same environment all the time with nothing to do. It was unfortunate that some of the players would be stuck there, but I would leave my car for some of them.

Each week, it was the same routine. You just had to take each day at a time. It was very regimented. You would wake up, eat, play, come back, eat, play, and come back. There would be meetings in between, physiotherapy in between, obviously personal hygiene involved in between. But I found that, being at physiotherapy as much as I was, there wasn't a huge amount of personal time although I would try to get involved in a book or something.

I pulled my hamstring over the weekend and that started the second week for me. That was sort of the beginning of the end. It's unfortunate because if you just take a few days off as opposed to trying to work through things, it's healthier down the line. But I don't think the coaches think too highly of players who are sitting out. And if you're not complaining about it, they assume that you're okay so you're sent into the drill. That was really frustrating for me.

After the second week, the coach did a round of cuts on Sunday. Certain players weren't affected, and didn't concern themselves with it, but a good majority were worried. Often, those who worry shouldn't be worried. I wasn't too fearful of getting cut because the head coach and I had another individual meeting and he said at this point, 'Well, I see you as part of my team.' So he'd bounced from what he had

said the second time to a more positive perspective.

At this point, I was just really concerned about the hamstring because it was not getting any better. What should have been a week to two week long injury was lengthening. So I found that really frustrating; the physiotherapist and I would specifically agree together that certain sessions would be taken off and then, in the middle of the session, I would be handed a yellow pinnie and be expected to go and perform. So there was a lack of communication among all the staff members, which really made it frustrating for me. I just found the injury really frustrating. It was something that needed time and I was not given that time.

A few days later, the team was scheduled to travel to a city close by to play two exhibition games against Italy. We stayed at a very nice hotel. We had roommates at that point. You're more into a competition phase so you train once a day, sometimes twice, but it's more recovery-based, not trying to gain fitness but just maintain what you have.

The days on which we played evening games were very long, and drawn out, days. We would get to sleep in a bit longer, breakfast was a bit later, but it was usually chock-a-block packed with meetings. Sometimes we would have a meeting in the morning, and a meeting in the afternoon, and eat three times before going out to play. It was a bit much, but it was very routine-like. For earlier games, we would wake up earlier and usually get a couple of meals in before, say, a noon game. But we would cram in meetings. There would be a team meeting on what the other team looked like and how we were going to play against them, and then we would break off into individual positional meetings.

For the first game, I was sitting on the bench so I got a good view of what went on. I thought the team played fairly well at times. The second game didn't look as good as the first game. I knew I wasn't going to be playing at all. I was just a little bit embarrassed deep down just sitting there. He cleaned the bench throughout the two games. I think everybody got an opportunity to play and then there was me, sitting there, realizing that I wasn't even on the list. I just wanted so badly to be out there helping out. So I was embarrassed and frustrated knowing that I could not physically perform. We had just come to the conclusion that I wasn't going to be ready.

Leading up to this, one of the girl's mothers was very sick and was in a coma. There was a huge discussion between myself and the coach and this player. They were recommending that she should stay another day and a half and fly out at that point to go see her mother. I found that really disappointing - that they were choosing the sport ahead of her mother's illness. I basically approached the coaches and said she needs to go home. They didn't know if her mother was going to make it through the night. She went home. The last week before we came into the city to play Italy her mom passed away and she was able to be there. After the whole Italy series, half the team, or so, went to her mom's service. My heart just went out to her. I thought it was really important that she had been there and that I had taken up the cause for her with the coaches and really stood firm on what I thought she should do. She had been fearful of asking for what she really wanted of the coaches, which is sad. I think sometimes we get very consumed and we think that this is our life, and our whole world, and that's just not the case. You have opportunities throughout your life to play a sport. You only have one opportunity to be with your mom on her deathbed.

After the games, we would have an opportunity to sit around and talk with the people we knew in the stands. We would then board a bus and always eat a meal right away. Sometimes the coach would say some words but otherwise we would just start the routine again. The next day, typically, was a recovery day, getting on a stationary bike and just spinning for a while.

We travelled back to Kingston for a few days. It was the same sort of training sessions. We were back in the training phase. We weren't staying at the dorms anymore; we were staying at a hotel. The coach still had two more players to cut so certain players were on edge. The final cuts were made after three or four days, right before the team went down to Boston. One of the cuts, I would say, was a surprise and the other was a self-cut due to injury. The team went down to Boston right after that.

I think the world competition seemed so far off, even though every day we'd wake up and signs would be posted on the physiotherapist's door saying how many days left to go until the world championship. I was still injured. I could sense that the coaches were growing a little bit, not impatient, but all of a sudden they were telling me one thing which was, 'you're playing your role and we appreciate what you do behind the scenes, even if you don't play a minute, you bring so much to this team blah, blah, blah.' And then a week and a half down the line they were telling me that things had changed and they needed me to play that day in order to see where I was. It was just very confusing and mixed up. I was riding this roller coaster and, based on what they were saying, I would change the way I performed in training. Not the performance itself, but how I would go out there and exert myself.

In Boston, we had two international games. We stayed in the same hotel for both of the games. We still had a roommate. Hotel eating is different from dorm eating because everything is buffet style and you can have as much as you want. You don't have to control your meal and make sure you have the right amount of items. The training wasn't too crazy, but I just kept re-tearing and re-tearing [my hamstring]. I just shouldn't have been training. It just kept getting worse and worse. And what should have been a two week long injury turned into a seven week long injury.

The first game against China was a fairly good one. I think those were a couple of our best games against the Americans and the Chinese. The US game was phenomenal. I would have liked to have been involved as a player, but it was still great to be there. Then things kind of went downhill from there.

I think some of the players were growing restless from sitting on the bench. I think the coach almost looked to me to try and calm them a bit, but I was experiencing the same feelings as before sitting on that bench. I was embarrassed that I was not healthy and frustrated that I couldn't go out there and fill the role. At this point right after the games, he was saying, 'We need to see you. We need to see if you can play.' This was a drastic change from the last time he talked to me, but one of the players had become injured and it just changed the picture a bit, which I understood. He had a job to do and I was a pawn just like the rest.

So the next day we travelled back to Montreal from Boston by bus and flew out to Calgary. That was a horrendous day. Our National Organization is trying to save money so instead of flying us directly there, we took the milk run back to Calgary. That day really took a lot out of the players. The

coaches saw it as a day of rest. The players didn't. Travel days are just big waiting days; they drag on and they take a lot out of you. To pass the time you end up socializing with people that you're comfortable with. People go on Starbucks runs if you're at an airport or read magazines together. You just try and spend the time as enjoyably as possible.

We were at a very nice hotel about an hour out of Calgary. We were heading into a new series, coming off a high point, and we hoped to keep building. So we trained. There was a bit more media exposure. Our first game was really terrible so the coach hit the roof. He could barely talk to us. I think he was very disappointed with what the team had just done and that just affected the mood of the entire team. He had a tendency to get extremely angry at times. In situations like this, I find that female players really play off of somebody; especially somebody's who's in a power position. So I felt that the players were very aware of the coach's moods and emotions and he was really upset. He said not to hang onto things from games, but there he was really hanging on to something.

It was a little different for me. I sat there and watched that game and having basically said, leading into it, that I couldn't be ready for it. I would, however, no matter what, try for the next game. But physically I just couldn't for that game. I was slowly getting better and if I went out and played I would have dinged it right there. So it was different not having played in the game at the time and wishing that I could have done something other than cheerleading. I was just so focused on wanting to get better.

After that game we had a day off, but it just didn't feel like a day off because we were constantly wondering what the head coach was thinking, what was going through his

mind. Now the practice before the second game, he'd mentioned to me that the coaches were looking at playing me in a different position and I kind of laughed at him. He told me the reasons why he thought it would be good for me and I still didn't believe him.

On the day of the game, the first thing that he did was bring me into his room. I thought he wanted to talk about this position. Eventually he did, but he had brought me into the room to have an absolute go at me. He just tore into me, swear words, blah, blah, blah. He was extremely upset with the team and he wanted some player to bring his emotions out on. He was really upset with one player in particular and angry because the team had performed so badly the game before. He said if we didn't perform well this game, we would be in a lot of trouble with him. He also said we wouldn't enjoy ourselves for the rest of the world tournament. So he was basically threatening me. He said that he was thinking of putting me in a new position. Also that his blood pressure was really high and that he was under a lot of stress. I thought oh gees sorry, what can I do? He was concerned that the players weren't thinking about the game. I thought the majority of players were focused on this game.

So game day arrived. There was lots of fan support and the game was televised. Just before half time the coach said, 'You're going in at this position.' So I ended up playing that about half of the game. It was exciting. We ended up winning and I contributed to the scoring. I felt a huge amount of relief, not for myself, or that I contributed to the point total, or that I got into the game, but because the team performed well and we weren't going to get it from him. I just didn't want the team to suffer because he was basically threatening

the whole team through me. This was something that I couldn't tell the team about. I think I told one or two players, just because I was shocked at how he had just behaved with me. But I took the attitude that he picked the right player of all the players to get angry at because I had really nothing to lose. I hadn't been playing. I just took it because I could probably handle it more than the vast majority of players. They would get extremely angry and or extremely emotional. I was just fairly indifferent. I felt badly for the team and I felt badly about his blood pressure, but there was really nothing I could do.

It was an amazing feeling, to get in the game, play at about seventy-five percent and know that I could still improve and that I hadn't suffered any major setbacks. That was really good. So, we moved on and ended this whole situation on a high note instead of a low note.

Although I don't think that I got the best attention for my injury, I really enjoyed talking with the physiotherapist. I thought she was a supportive individual. I really spent a lot of time with a couple of players. One got cut due to injury, so I missed her. Two others were probably two of my closest friends on the team. I got along with basically everybody on the team. I also enjoyed spending time with my roommate.

When I came back from the camp, I didn't really want to talk to anybody about it. I just didn't want to hear people's opinions. There was still a lot of bitterness involved. A few weeks later, a bunch of players were decarded from the program and I think that was the final slap in the face. I was one of the players. For no reason some of the players got cut and then a couple of weeks after that the coach got fired. You go through different emotions.

I think as time went by and the bitterness dissolved somewhat, I realized that it was kind of an accomplishment. But right now I can name so many things that were going on. For example, the coach's personal perspective on selections often doesn't go beyond a certain group of players. So you end up with a familiar name, a familiar body and just reselecting those same players over the years. I think he kept choosing certain players hoping to make them skilled players and on the international scene, you just can't do that. You can have players that are natural athletes, but you still need players who are made for the game. After the competition, the head coach was quoted as saying that he had learned a great deal, but that we were just not a skilled team. He had chosen us - the group of players that he thought was the best - then all of a sudden he went against the players for not being skilled enough.

Also, the way he treated players and the way he communicated, or didn't communicate, to certain players left a lot of disparity between the players. You end up just fighting for yourself because the person next to you is getting treated very well whereas you're getting a strip torn off of you for no real reason. So I think that took a toll on players. In the end, I could see how some players, because they were treated poorly, ended up comparing themselves to other players and saying well I produced this, this and this even though I was injured. I wouldn't really do this during the camp, but I was doing it after. So I can understand how certain players throughout the whole training camp were doing that. You need a unified force, everybody for each other as opposed to everybody for themselves. I saw that as being a problem. The coach treated some players very poorly. I also think the sport psychologist didn't work for the team. I thought the concept was excellent, but I

think it needed to be more practical than theoretical. It ended up being just another thing that added into people's days. The players just didn't believe in it.

Also, I didn't think that the practices prepared us well for the international game. There was a lot of wasted time doing, and redoing, drills because a lot of us couldn't do them. If you are not skilled enough to do something so simplistic then initially the problem is selection phase. There are always opponents in your face and we never really practiced that way.

I found the coach's communication with me, and how his impression or opinion would change day-to-day, very difficult. I didn't know what was going on from one day to the next. And I understand he's got a job to do and we are all pawns, in a sense, but you believe what they say and then all of a sudden it changes. Your attitude or what you put into your sessions changes as well. Communication ebbs and flows and my relationship with the head coach dictated how I went on to train. I found also the lack of communication between and among the staff members, the physiotherapist and myself really poor. I think that hurt me as well. The physiotherapist and I would agree on one thing, like I wouldn't take part in a certain training session. This is my rest. She would apparently talk to a coach and then during training another coach would hand me a pinnie for a drill. By that time, with my personality, it's too late. If someone hands me a pinnie, I think well, suck it up and start performing.

At training camp, I found the experience with the groups of people very good. I tended to just get to know a few people really well. In Kingston, we were living in our own rooms so we tended to socialize with the people that were close with us.

Then, when we were on trips, we had roommates so we would end up socializing with them. But I enjoyed spending time with everybody. So it wasn't the players that I had a negative experience with. I really liked all the players.

Three and a half weeks is a long selection phase. It takes away from a lot of team preparation because the team doesn't really start forming as a group until a month into the six-week preparation. I think, because the team wasn't formed early on, we ended up essentially with two and half weeks when every player was there. I understand that mental toughness and battling, but I think it takes away from coming together as a group when you're just fighting as an individual to make the team. Also the preparation against Italy was good, but because it was the easiest set of games that we saw the entire time, I think that got us - the staff and the players – salivating, and thinking that we had something special here. But on the measuring stick it was way down there. So I think perhaps we, the players and the coaching staff, started to take things for granted.

I take away some of the good friendships. I guess for me, I had a bit of a unique perspective, more so than any other player because I got to watch a bunch of players and how they reacted. I got to know their practice personalities more so than they know themselves just because being injured and riding the bike during practices, I was always there at the side. So I found that quite interesting, seeing the different personalities of the different players. I got to analyze that quite a bit.

It's different to be on the side at practice, having no role, having no choice about it. And you can't really do anything about it either because it just takes time. When

you're pretty much slotted in as a starter and then on some games not even being on the roster, it's a different role. You keep things in perspective. You still need to do a job and your job is to perhaps be captain of the bench or whatever, and you try and help out in that regard. There's just nothing much you can do about it. You just sum it up to really bad luck and I've had a lot of bad luck. So you can't get angry about it. Sure there were times when it really upset me but I didn't tell other players about that. I would just keep it to myself because they had their own worries and it was just something that I had to deal with.

If I could go back, I wouldn't tear my hamstring. Perhaps even before camp, ideally, I would stop my job a month early and prepare my body better instead of sitting in a chair for 12 plus hours a day. Preparing my body might have helped the in-camp experience. Because I was coming off an injury, I was even more behind the eight ball. One teammate would always tell me, 'you don't really have to prove anything'. Maybe I should have just held off, but that's a very difficult thing for me to do.

I definitely feel that communication is incredibly important. And I think there's nothing wrong with telling an individual or a team that they are awful. But I think you have to also say you're a good player and I chose you because of this and this and this, and this is what you can bring to the team, this is how I see you improving, and this is what I need you to do to improve so as to get yourself out of this awful category. The coach didn't really bring out the best in players. He tended to try and bring out the best in a select few and rip down others. So if, in any way, I could try and prevent that so that there was more of a unified force versus a solitary force, it would help. The coach was constantly changing his thought pattern

within short periods of time. He had said, three months before, that it was going to be different, that he was going to be more positive. I think, sometimes, that he was, but just not all the time.

I think it will be a better experience as time goes by. I think what makes it so much

harder is thinking about how close you were and how just a few little details could have made the experience a lot better. I think that's what you end up focusing on. It's a difficult pill to swallow. It doesn't paint the picture a different colour. It just makes a bad situation not much better.

Interview with Steve Giles, 2000 Olympic medalist

Steve **Giles**, Olympic bronze medalist in Canoeing, C1 1000 meters, at the Sydney Olympic Games, and 1998 world champion in C1 1000 meters and Penny **Werthner**, Interviewer, University of Ottawa, Canada.

Abstract

I sincerely thank Steve for being very forthcoming in this dialogue about his international career in the sport of canoe/kayak. His thoughts and insight into the process of his development as a high performance athlete and Olympic medallist are extremely revealing and will, I believe, be very useful for athletes, coaches and for those who work alongside them. It is clear from this dialogue that the road to Olympic success is often long and requires a great deal of perseverance, the development of a significant level of self-awareness, an strong belief in one's ability, and plenty of physical and mental work.

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1984-1988

Penny: When did you start paddling?

Steve: I started paddling seriously in 1984. That's when Tony Hall came to Orenda Canoe Club. In 1988, when I was 16, I went to the Western European junior championships and I won gold medals in 1000m and 500m.

Penny: Those were pretty good results. And Tony Hall was coaching you?

Steve: Yeah. Tony was coaching me. In 1988, the Continental Cup was in Ottawa, and I also got two golds, in the junior races, in 1000m and 500m. And I finished second in one of the senior races — I raced it as an exhibition race— and was second to Larry Cain. This was my first time against the senior athletes.

Penny: You talked about was not expecting any of this. You said, 'I knew I was pretty good, but...'

Steve: Well, I had no idea. I had never raced against Larry or anybody from outside of Canada. All I knew was people were really good. I knew I was decent and that I could do some good times, but, beyond that, I wasn't going there expecting ... it just kind of happened.

Penny: What about the Canadian trials in 1987, when you were 15 years old?

Steve: Yeah, I was 15. I was fourth overall. I was fourth in 1000m in juniors. And they didn't take a C4 to the world championships that year, so I didn't get to go to junior worlds that year.

1989

Penny: In 1989 the junior world championships were in Dartmouth, Nova Scotia and you came third in 1000m?

Steve: Yeah, and fourth in 500m. Before those championships, we raced in two different regattas in the spring. One was in Czechoslovakia, where I got killed. (I raced well in '88, but there were a lot of guys I didn't race against because it was the western European countries). I had never seen the Russians, the Hungarians, or the East Germans, and they beat me pretty bad. It was a bit of an eye-opener. I got a little more serious about the racing — this wasn't going to be so easy; I wasn't going to always go out and win. I had to realize that there were people out there who were better than me. At the second regatta — the Hungarian trials — I did pretty well. I was maybe a bit more focused, more into it, more aware of what was going on.

Penny: But you were still pretty young; you were only seventeen.

Steve: Yeah. At the junior world championships, in the final, the East German was in the lane next to me, and right off the line, he was ahead of me and he won by a lot. I really wasn't expecting that to happen. Even now, I don't think I raced very well. I don't think I had a chance of beating him, but I probably could have come second if I'd been able to keep my focus and not pay so much attention to him.

Penny: So is that what you think happened? You focused too much on what he was doing?

Steve: Yeah, all I could think about was how bad he was beating me, how I couldn't catch up to him. It was lucky for me that

there weren't a whole lot of other people in the race who were that good. I really didn't race that well. I was lucky. The fourth place guy was pretty close to me.

1990-1991

Steve: In 1990, Larry Cain was the best Canadian paddler in my events. He had been the silver medallist at the world championships in 1989, a close fourth in the 1988 Olympics, and gold medallist in 1984 Olympics.

Penny: At that time you were not thinking that you could beat him?

Steve: No, I don't remember if the thought ever crossed my mind. I was first year senior, really last year of juniors but there were not any junior competitions that year, so I was just planning to go and see what would happen. (I was also racing C2 and we had no expectation of racing at the world championships or anything like that).

I beat Larry. I beat him three times that year and raced at the world championships in 1991. in Poznan, Poland. I remember being in the boat bay, and Tamas Buday, one of the national coaches, probably thought I looked a bit nervous, and he wanted to make me feel better and he said, 'Just go out there and do your thing. Don't worry about winning the race. This is your first time and you will have lots of chances. Just go and try to learn something.'

Penny: And did that help?

Steve: No, because I didn't want to listen to that. I said to myself, 'I beat the guy who came second last year, so that means I'm at least that good. So if I race well, then I think I can win the race. So that's what I'm going to think about. I'm going to think about

winning the race.’ When the race started, and all of a sudden I wasn’t winning, everything fell apart.

Penny: So with your engineer’s mind, the analytical mind, you had it all figured out analytically. ‘I beat that guy last year, so I should beat him this year, so therefore I should win the race.’

Steve: Yeah, absolutely for sure. And I find myself doing it even now. ‘I beat this guy, and he beat this guy, so therefore I should.’ And I know it (sport) doesn’t work that way.

Penny: But did you know it then?

Steve: No, I didn’t. Now I do.

Penny: So now that you understand the problem — that kind of thinking doesn’t usually work from a sport performance perspective — you have learned how to change that kind of thinking?

Steve: Yes, I can change that thinking now. But in 1990/91, as far as I was concerned, if Larry had been there, he was good enough to come second, and I beat him, therefore I’m good enough to come first.

Penny: Too bad it doesn’t usually work that way. So then what happened in the race?

Steve: I packed it in about halfway through the race.

Penny: What were you saying to yourself?

Steve: I just started to think that I was getting high (boat rides high in the water), I was getting into wash, and I just decided it wasn’t worth keeping going, that I might as well just stop. I was coming ninth, and ninth is ninth. And if I quit and come ninth, then that is the same as going hard and coming

ninth. So that’s what I did. And, yeah, I have to forgive myself for that.

Penny: You can forgive yourself for that.

Steve: Yeah, I know, but ...

Penny: Is it fair to say that the reason that happened (giving up in the race) is because all you were thinking about, going into the race, was winning? And when that wasn’t going to happen, nothing else was important ...

Steve: Yep. I wasn’t winning, so ...

Penny: What did you figure out from that race?

Steve: I don’t know if I learned anything right away. I was pretty upset because I gave up. At the end of the day, when I was sitting in my hotel room going over my year, I felt I had nothing to show for it. I didn’t know how I could have done and I really didn’t even try, in the end, and that really upset me. It took a while for me to really figure out what exactly went wrong. I had a couple of similar experiences in 1991, not at the Worlds, but at a couple of different regattas. I didn’t actually quit, but I knew I wasn’t going to win. I was going hard, but not really paying attention to what I was doing. I was looking around, just feeling pretty inferior to some of the guys.

Penny: What races were those?

Steve: European international races in ’91. There were no world cup races back then. Tamas got pretty upset with me because he knew I wasn’t really doing the best I could. He told me he was starting to see a pattern form — I quit at the world championships and now I was quitting in other races — and he gave me a pretty good talking to, for

Tamas. He wasn't yelling and screaming, but he let me know he wasn't very happy, and that woke me up a bit.

Penny: I remember dropping out of a race as a track athlete, and it was so difficult in the next race not to quit at that same spot in the next race. It's so powerful, so easy and powerful to fall into that pattern, isn't it?

Steve: Yeah, absolutely. And it was really good that Tamas talked to me. The next day I went out and raced the 10,000m (in Segezd, Hungary) and I just said, 'I don't care what happens. I'm just going to finish this, as hard as I can, no matter what.' And I came about 10th, but I felt good about it because I had gotten past that.

I didn't end up racing at the world championships that summer because Larry (Cain) beat me a couple of times in Europe. I went home and we raced at the trials, and I raced really well and beat him twice there. We had a race-off at the national championships, and again he beat me and I ended up coming fourth. Once he got ahead of me, I just kind of felt like ... this was a race-off for the world championship team — the point for me was to go to worlds and that was not going to happen. I let some people pass me who shouldn't have. It was the same sort of thing as the previous year at worlds. You focus on one thing and when that doesn't happen, it all falls apart. That race, the 1000m, was on Friday night and I lost the race-off and I was feeling pretty sorry for myself. The head coach at Orenda Canoe Club said that he could use me in the junior war canoe. I didn't really want to do it, but I thought if they needed me in the boat, then I would go. It was the most painful race I've had in my whole life. You can watch the video. There are these twelve guys in the boat who had been training all year and knew what they were doing, and then there

was me. I was second on the left and the last two hundred meters, I was just barely hanging on - just hanging on in a junior war canoe. It was bad! But it was good because it got me out of my depression. I went out for dinner that night with the team and came back the next day and just decided ... I had never done very well in the 500m - I always felt I could - I just decided I was going to go and race as hard as I could and see what happened. And I won. And I beat all the guys going to the worlds. It was just really exciting! It was a big breakthrough for me. I could easily have ... I was so upset about not going to the worlds. The whole year had gone. A couple of races in the spring were good and I thought I was doing better, and then I crashed and burned again.

Penny: What were you thinking in the 500m?

Steve: 'Just go race it.' I remember thinking, 'This is just for me. Do it for yourself. Don't care about what anybody else is doing. Don't think about what anybody else is thinking. Just do it for yourself. Make yourself proud.'

Penny: And that kind of thinking helped you race your best?

Steve: Yes.

1992

Steve: 1992. Barcelona Olympics. I had almost learned the lesson about not having to win. I definitely learned it for the 500m. I think I raced fairly well in the 500m, coming 6th, which is my second best result ever, internationally. I was really nervous. I got sick before every race, but I still felt I raced pretty well.

Penny: Was Tony Hall, your personal coach, in Barcelona?

Steve: No, Tony was not there, and I missed him a bit. Back then, I always felt really alone, especially on the day of the finals. In the 1000m Olympic final, I remember it was kind of the same feeling. I don't know if I was thinking about winning, but I wasn't really prepared for how hard I had to go. So I came in from the race - I came ninth - and I remember thinking I probably could have gone quite a bit harder than that. There was a long period of time, in the 1000m, where I couldn't seem to make myself to get over that hump. I'd start to feel tired in the race and so I'd slow down, and not try to get past that fatigue and pain.

Penny: Did you have a plan on how to race, at that point in time?

Steve: Yeah, I did, but I didn't do my race plan. I had it in my head. I rehearsed it, but I didn't spend much time on it. It was pretty basic. Do a pick up at 500m, start your finish with 200m to go. Not at all the way it is now, with all kinds of technical cues, and one-word cues to put me in the right spot of each race. That was another thing. I went there dreaming of getting a medal, not really expecting a medal, but thought it would be really cool. Then I didn't win a medal in the 500m, and so I thought, I've got one more chance, so thinking about winning a medal was a little more on my mind in the 1000m than it probably should have been ... and that affected my race as well.

Penny: You were still outwardly focused on the medal, on the winning?

Steve: Yeah. Not as much, getting better but ... I felt the biggest problem was that inability to push myself, in the race, past where I needed to be.

Penny: And why do you think that was?

Steve: Well, as you said, it was a bit of a pattern. I had quit a couple of times in the past. And during that time, there were not a lot of races, in Canada, where I was being pushed, where I had to go through it. I could slack off a little bit when I started to get tired and still win the race.

Penny: But in European and international races that wasn't the case. You couldn't back off when it got hard and still be up there?

Steve: Right.

Penny: Did you ever talk with your coaches about that issue?

Steve: No. Because I always figured it was just a matter of going harder in the race. It should be simple and I should be able to do it. There is nothing wrong with my training; it was just me on race day. To a certain extent that was true, but ...

1993

Steve: Then in 1993, in Copenhagen, at the world championships, I won a medal that year. I always forget. I came 3rd in C1 500m and 4th in C1 1000m. It was a good year. I raced really well. I didn't really think about where I was at during the race.

Penny: In both 500m and 1000m?

Steve: Yep, in both races. Well, more in 500m than 1000m. In the 1000m final I ended up in the lane next to the Russian, who won by about 20 boat lengths, and he said after the race, 'You know, I came off the line and looked around and wondered why everyone else stopped paddling.' I thought, 'Thanks a lot.' It did disturb me a

little bit, in the race, that he was so far ahead, but I handled it ok.

Penny: What did you do in that race to ‘handle it’ so well?

Steve: I don't remember very well. I remember thinking that I just wanted to stay as close as I could. I could see that I wasn't in 9th place. I knew he was beating me, but I wasn't last, so it was still worth going hard. In 500m, I was just fast. I didn't worry about winning because I didn't really think I had the ability to win.

Penny: So in 500m, you didn't put the pressure to win on yourself?

Steve: Exactly. I just went into it to have a good, hard race. Which made 1000m even worse because I always figured 1000m is my race, and I did well in 500m, so therefore I should do better in 1000m. Which I think is why, for the first ten years of my career, C1 500m was always my better race, even though I knew C1 1000m should be my better race.

Penny: Would you say then, that one of your issues was about your thinking of what you *should* be able to do and focused, perhaps too much, on your expectations around winning?

Steve: Yes. Another good example of having high expectations of doing well (and how that can hurt a performance) was in C4. We had raced in Duisberg, Germany, and we won. Every country wasn't there, but ... we thought we were pretty good. And at the worlds in Copenhagen, we went out there and got washed out. We got behind, panicked, didn't paddle well.

Penny: So when you say ‘panicked’, think of that race and tell me what ‘getting panicked’ means to you.

Steve: It means I'm just thinking about pulling harder so I can catch up. And I've got to catch up as quickly as I can because we are too far behind.

Penny: So it is very much related to an outward focus — on other boats, other crews, other competitors, rather than on your own race.

Steve: Yeah.

Penny: Did you talk about this, after the race, with the other three athletes in the boat?

Steve: We talked about it a bit, but the big problem was that none of us were very good at staying focused and being on task.

1994

Steve: At the 1994 world championships in Mexico, I came 8th in C1 500m and 9th in C1 1000m, and it was horrible. We had a training camp in California, in the mountains, at altitude, prior to the worlds. It was freezing cold. I got there, and I was feeling really good, the best I'd felt in a long, long time. And I started thinking, ‘I've still got three weeks to go here and a week in Mexico, and I'm feeling pretty good now, but that's probably a little bit early to be feeling good, so I think I'll go do some heavy weights and then I'll start feeling bad and then I'll be able to come back up and feel good at the worlds.’ And that's what I did. And, sure enough, couple of days later I was feeling bad and I thought that's good, but I just never came back.

So I went to Mexico and the first heat of 1000m, I remember being in so much pain. The heats were set up so no one got eliminated. I started out hard and just ended up packing it in, just racing it to get the oxygen. I knew I was in big trouble and I was right. Things just went downhill from there. It was kind of a spiral. I started thinking ‘Well, I'm not feeling good and I'm not racing well. Things probably aren't going to go well. I'll just try to make the best of what I've got.’ That's what I tried to do, but that kind of meant I'd given up on fixing anything. One of the things that I've found works, when things are going bad for me, is to try thinking about why they are going bad, maybe work on my technique.

Penny: Try to consciously and calmly figure things out.

Steve: Yeah. Instead, I kind of said ‘Things are going bad. The races have started. It's too late to change anything so just try to go hard, muscle through it, be tough, and see what you can do.’

Penny: But don't change anything?

Steve: Yeah, don't change anything. I wasn't even thinking about changing anything.

Penny: Often, as an athlete at this high performance level, when things aren't going well, you really do know what the answer is, how to fix things. The key is developing the ability to be calm, step back, think about it and figure out a solution. Perhaps it's not always possible, but more often than not it is possible to figure things out, if you can remain calm and objective. It's a skill. The problem is athletes often just usually keep rolling, try harder, panic and try harder still.

Steve: Yes. The 1000m just went badly, I don't remember the race. I didn't even bother

to look at the results. It was just so disappointing. But I remember in 500m, I went out with the idea that ‘Things are going bad, so just be tough, go hard, muscle through it.’ Halfway through the race I was sitting fourth or fifth, and I thought, ‘I'm going to go as hard as I can now to the finish and maybe I will win a medal. Maybe I can just get ahead of these guys if I really go for it.’ (This was totally outside my plan for my race). It was way too early. I went hard for maybe 150m and that was it, I had nothing left, and I was passed by four or five guys.

Penny: So that year you went from third and fourth in the world to eighth and ninth. What were you thinking and feeling at this point in time?

Steve: Well, I was a mess. I was just wondering what was going on, why I had screwed up so many times.

Penny: So, as a bit of a summary for this point in your canoeing career, you would have some really good performances, and then others put expectations on you and you put expectations on yourself, and then you would did not have an effective way to deal with those expectations. You're always thinking about the outcome rather than execution of the race, and then you would race poorly. Did you begin to think, is this worth it?

Steve: Yes, I thought that.

Penny: What helped you get through that? What helped you continue in paddling?

Steve: A couple of things helped. One was Tony Hall, my coach at home in Nova Scotia. He was always good at motivating me, letting me know how good I was, and making training fun. There was always a good atmosphere during training. We had a

really good training group at that time. It was fun. It was somewhere I wanted to be. The other thing that helped was I just *knew* I was better than that. I knew I had the potential to be good. I just felt I hadn't raced up to my potential. I just wanted to get to that point. And I wanted to win medals at that level and be the world champion.

Penny: When you say 'I just knew I was good', how did you know you were good (especially when the results were not always there)?

Steve: I knew simply because the feelings I had in a race and the feelings I had in training are just so completely different. A good day in training compared to a race at the World Championship — there was just no comparison.

Penny: So, two things helped keep you going. You knew from your training that you were so much better than what you were able to put on the line in a race. And Tony, your coach, created a great training environment that helped a great deal.

Steve: Yes, for sure.

1995

Steve: The plan for 1995, the year before the Atlanta Olympics, was that Dan Howe and I would race C2 and I would race one of the C1's. The three of us (Tony, Dan and I) sat down and looked at the schedule and the races. I was doing better in 500m at that point. I would race the C1 500m and Dan and I would race the C2 1000m. That turned out great because the competition in C2 1000m wasn't that stiff. My motivation in doing this was that it would help with my nervousness. I was still throwing up before most races. I thought it could help by giving me a partner to share things with and take

some of the pressure off me as an individual competitor. It also gave me someone to train with right up to the day of competition. Because one of the things that had been happening was that I would train with this great group of teammates all year and then I would go off to the world championships and be by myself. Sometimes I would train with the C2 guys, but the closer we got to the races at worlds, the more we needed to separate to do our own final training, and I would be on my own.

Penny: To come back to throwing up, did you throw up at all your races, or just at the worlds?

Steve: Almost every race. I would usually throw up at the trials, and sometimes at the European races, and then always at the world championships.

Penny: It's great that it doesn't happen anymore!

Steve: Yeah. It was not fun at all. I was not having fun at all at the races. Which is another reason I was doing bad was because all I was thinking was 'let's get this over with.'

Penny: But you would go back to training and it would be so much better, and you just knew you were better than what you showed on race day, and you were thinking, 'I'm way better than this. I've got to just figure this out.' Is that a fair analysis?

Steve: Yeah, for sure.

Penny: What happened in 1995 at the worlds in Duisberg, Germany?

Steve: In the C2 we didn't make the final. I was pretty upset, but it was our first time at the worlds. We had only raced two interna-

tional races before that and we didn't race that well. It was an experience thing. I wasn't that nervous. I had zero expectations, and we just didn't make the final, probably because we hadn't raced together enough as a team.

Penny: Looking back now, why do you think you didn't make that final?

Steve: Well, there were a few technical things. We had only been together since the spring, we didn't have a lot of race experience; it's the same kind of thing. You always feel good going when you have to go 90%, but then when you have to go 100%, it's so different.

Penny: That is so true in crew boats, isn't it? It takes a lot of time to get it right.

Steve: Definitely. And that 'feel' in the boat when you are going at 100% is so hard and so different from training speeds. It happens all the time in winter training in Florida. You're going along at 40 strokes a minute and think this is great, really smooth, really gliding well. And you keep paddling like that until it's time for the racing to begin and then you feel so bad out there at a higher stroke rate.

Penny: So it's a mistake you made, not going hard enough in some training situations, and not having enough races together (although not enough races is not really within your control)?

Steve: Yeah, definitely. In C1 500m I came 5th. I was pretty happy. It was a good race. I raced well from start to finish. I didn't look around. I was focused on doing my best. It's kind of funny; a couple of times, in 1995 and again in 1997, I was so disappointed with the previous year that I was just thinking (in that next year at the world

championships), 'I've got nothing to lose; I'm not expected to win, so I'm just going to go out and think about my own race, and see what happens.' That works well. And then the next year, having done well the previous year, I would think, 'Now I should do well.' And then I wouldn't race well.

Penny: So were you starting to see a pattern, particularly a thought pattern that sometimes was working for you, but, more often than not, was working against you?

Steve: Yeah, I was starting to see it. But I still threw up in '95.

1996

Steve: In 1996, I thought things are going to be different. I wasn't going to be nervous. Yet I still did throw up. I did so well in races prior to Atlanta and the Olympic races. I've thought about this a lot. All year long in '96, whenever I would start to get nervous, I would say, 'Don't think about it. It's just another race. Pretend you are somewhere else.' Finally, on the day of the final, I couldn't get away from it. It just hit me.

Penny: Steve, that is a really important point. At the Olympics, and probably at most important competitions, you just cannot *not* face the possible tension and stress that you are feeling. You need to face it and resolve it. Otherwise, when it comes down to race day, when you actually have to race — there are no options, it's 3pm today — and it all falls apart, which is what happened to you. At that point you were not willing to look at what the issues were. You were trying to push them down inside you, hoped they would stay there, but instead they all exploded as you were on the dock.

Steve: Yeah, absolutely. After one of my first heats in Atlanta I said, 'In Barcelona I

thought too much, so here, in Atlanta, I didn't want to think too much. And now I don't know how and what to think.'

Penny: Let's just go back a bit. I started working with the team and with you after 1994?

Steve: Yeah. It was after 1994, and I said, 'I need to get some professional help.'

Penny: When we first started to work together, in 1994, my impression was that you were quite receptive and things progressed well.

Steve: Yeah, for sure.

Penny: And then, my sense was that in that 1996 season, leading up to the Atlanta Olympics, you really didn't want to meet. What you said each time was, 'Everything is good, no problems or issues. I know what to do.' And in that situation, if you, as an athlete, are telling me everything is ok, I cannot say, 'I don't think it is.' I have to assume then that everything is ok. And, most importantly, I'm really hoping it is.

Steve: Right. That's fair enough.

Penny: Why do you think that happened? Were you afraid to talk about what was going on in your mind?

Steve: Well, I thought everything was fine. I really thought I had found the solution for me, going into the Atlanta Olympic Games. If I just didn't think about it (competing, the stress, winning a medal), it would be ok. 'Don't ever think about getting on the podium. Don't ever think about being in Atlanta, being at the Olympics.' But then I'm looking around and seeing gold medalists. So the morning of the final I remember feeling sick, and again throwing up before I

got in my boat. Then I felt better and was a bit more relaxed. I went up to the line and I remember thinking, again, 'Just go hard, do what you can do. Follow your race plan. You're good in the second half, so go as hard as you can in the first half of the race, and keep going.' I stuck fairly well to my race plan. It was a good race plan. I just went a little too hard at the beginning. I was winning at the 250m, but then I was tired. Whether it was because I went out too hard or because I had been nervous all week, I don't know.

Penny: Looking back, why do you think you went out so hard so early in the race?

Steve: Honestly, I think I was tired from being under stress all the time, from trying *not* to think about it all. I was fine until the Olympics started and then I started to get nervous. I'd turn the TV off, and walk around trying to ignore it all, but I would hear people yelling about some performance or another.

Penny: So the trying not to think about the competition is as tough and fatiguing as thinking too much, isn't it?

Steve: Oh yeah! Definitely.

1997

Steve: 1997, Steve's life: a bad year and then a good year! In 1997, I did not actually throw up before my races. We had started working together a little bit better, and I had started working more seriously on my race plan, thinking about things and putting myself in different race situations. And I had Angela, my wife, to help me remain calm. Still, the morning of the C1 1000m semi-finals at the worlds, in Dartmouth, Nova Scotia, I was in pretty bad shape. I remember feeling, this isn't much fun, and thinking

‘Well, I really want to be in the final.’ Everyone was there watching and I was thinking about that. I didn’t want to be disappointed and not make the final. It was my first time, in a couple of years, racing 1000m - I only raced 500m in 1996 - and I didn’t know how I was going to do. I was really nervous. I went out and by the time I got up to the line I was feeling better, mostly because the conditions were really tough. There was a huge crosswind, it was really cold, and it was raining. I had so much stuff to think about, other than how I was going to do in the race, that I just said, ‘All I can do is go out there and deal with the conditions and whether or not I make it to the final is kind of out of my control.’ And the semi-final went really well. And I ended up 6th in the final. But probably I had over-learned from my mistake in 1996. Instead of going out too hard, my plan was to go out really easy and then finish really hard. I went out really easy in the first half of the race and when I hit the 500m, I just started going crazy and caught a bunch of people and passed a few people, but I had got myself too far back in the first half and ended up sixth, a close sixth, close to fourth and fifth. I was happy, but a bit disappointed that I hadn’t really figured it out. Then in 500m, I didn’t look around at all. I just put my head down. I hardly remember the race. I was feeling pretty good, I was paddling really well and the boat was running well and I ended up fourth. So that was a good year.

Penny: That summer you told me that you were starting to feel and to understand that there was so much more in your life than just paddling.

Steve: Yeah, that was a big part in helping me perform better. I had always known that I had more in my life than just canoeing, but I needed reminders of that. And Angela helped me with that. However, at that point

in time, even in that 1000m, the reason I didn’t go out as hard as I could was because I was afraid of the pain and afraid of dying in the race. So I convinced myself that I needed to go out easy the first half and hard in the second half.

Penny: Did you have that in your race plan?

Steve: Yes, I executed my race plan exactly.

Penny: So, in retrospect, a different race plan would have been better?

Steve: Yeah, for sure.

1998

Steve: At the training camp in Belgium prior to the 1998 world cup races in Duisberg, Germany, I got so sick and didn’t eat anything for three days. I was feeling quite bad when we got to Duisberg. And it was a selection race for the C1 1000m entry at the world championships in Hungary later that summer. I had to beat Gavin Maxwell for the entry so I knew I was going to have to race whether I was feeling good or not. I got through the heats, through the semis, feeling pretty weak. When I went out for the final, I knew I wasn’t going to feel physically fit so I convinced myself that, no matter what, when I started to feel tired, just to keep going, and make it through. I said to myself, ‘You’ve got to do this.’ I went out and after 250m I was dying. I was breathing hard, and I thought, ‘This is it, I’m not going to make it.’ But then I said to myself, ‘Well, it’s just because you are sick. You’ve got the fitness; you just don’t feel very good. Keep going and it’ll be okay.’ I broke through to that next level, where I started feeling good again. About halfway through the race, I was getting ahead, and I thought, ‘Man, what’s going on? I’m supposed to be sick.’ I

just kept going and I won by about two boat lengths. I just amazed myself.

Penny: You prepared yourself for it to be ugly and tough, and it was. But because you had prepared yourself for that, you didn't give up and feel sorry for yourself when it did get hard. And then you were able to go beyond that point. Did you recognize that? What did you think after that race?

Steve: I thought I really have to go harder at the start of the race, because I can do it. I should plan my race a bit differently. So that's what I did for the worlds. It was pretty much the exact same race. I came through the 250m feeling awful and just kept going and it got to the point where I was feeling more relaxed and people started dying and I just kept on going. And I won. I was world champion in the C1 1000m in 1998.

Penny: Fabulous. Can you tell me a bit more about that race and what you were thinking and feeling?

Steve: At the start, as soon as the gun went, I took a few strokes and drifted a little bit. I wasn't paying as much attention as I should have been, and I remember saying to myself, 'Steve, this is the world championship final. Let's go for this.' From that point on it was all business, just in my race plan, in my own boat, doing my technical cues. Earlier in the spring, in Copenhagen, Martin Doktor passed me in the last 200m of a 1000m, and Angela said, 'Why do you always let him do that?' So in this race, with 200m to go, Doktor was right there in the next lane about half a boat length behind and I thought, 'If he passes me this time Angela is going to be mad.' So I went harder.

Penny: Coming back to the race plan, you made some adjustments after Duisberg in the early summer. How often would you go

over it in the course of training and competing?

Steve: Almost every practice, after I was finished working out, I would paddle up to the 1000m mark and turn around and paddle down easy, going through my race plan in my head. Some days I would go back up and do the 500m race plan in my head as well. Almost every day I did that. It would depend on how dead tired I was, but almost every day.

Penny: Not paddling hard, but doing the distance, and going through your pick-up points and seeing it and feeling it as you were going through it?

Steve: Yeah, seeing it and feeling it as much as I could. In the early part of the season I didn't do it very much on dry land, but as the summer went on, I did it more and more before I went to sleep, as well on the water.

Penny: One of the great strengths of running through your race plan almost every day is that you are then capable of remembering, for example, Angela asking why you always let him beat you in the last 200m. You can think those kinds of thoughts and still be capable of maintaining or re-gaining your correct and best focus, because you have practiced it over and over again. If you haven't practiced that skill really well, those kinds of thoughts take you and keep you out in the wrong place; in this case, on Martin Doktor and how he always beats you in the last 200m.

Steve: Yes, absolutely. And the other thing I found was that in 1998, I could be in the race and I could look around and see where I was, and it wouldn't affect what I was doing. I could be in fifth place in the middle of a race and not think, 'Oh my god, I'm not going to make it.' Rather, I developed the

ability to think, ‘You’re doing what you are supposed to be doing. Just keep it up and good things will happen.’

Penny: You were able to execute that in 1998. Your confidence was building. Were you able to do it earlier?

Steve: A little bit in 1997. It was building. I was doing some of it in 1997, but I think I just didn’t have the best race plan in 1997. I was starting to feel more confident, doing what I wanted to do. I started to feel I could compete with the other athletes. Before that year, I never had the feeling that if I really wanted to win, I could have. That’s not a great way to say it, but in ‘97, for the first time, I felt that if I had my best race, it would be good enough to be competitive. I had reached the point where I was relaxed enough so that I could think about where I was, I could look at people and see what position I was in and not panic. If I was in a lane next to a fast guy, I could pace off him a little bit and still stay within my own race plan. You know, it’s one thing to say that you have to stay focused on yourself, but it is a race and you have to pay attention to what is going on.

Penny: You bring up a very important point that is extremely relevant to racing. You, as a competitor, have to figure out how to go about having an awareness of what is going on around you in the race and still be able to maintain or re-gain your own focus.

Steve: Exactly. And in ‘97 I really started to learn that. In 1996, and before that, I always figured that my problem was concentrating too much on everyone else. What I was always thinking was, ‘Stay focused’, and I always drifted, and then I panicked. In 1997 and 1998, I found I could allow myself to be aware of the other competitors and still stay focused.

Penny: And you could do that because you had developed a solid and effective race plan and then spent a significant time, each day almost, going over that plan, for both 1000m and 500m?

Steve: Yes, I agree.

Penny: It starts to become ingrained; it starts to become how you will race, even if you didn’t get it quite right in the beginning.

Steve: Yeah, absolutely. The other thing about ‘97 was that, prior to that year, I had never been able to be in the middle of the pack and keep going harder and come fifth. If it didn’t look like I was going to be in the medals, I would just give up. This time, I was in the middle of the pack, I went hard the whole way, and I came sixth, and I was happy with that. That was a big step for me, to be able to race and not get carried away with the outcome, not to be solely focused on, ‘I have to win a medal.’ It could still be a good race even if I didn’t medal.

Penny: So finally you were starting to feel that you could be competitive internationally. In the earlier years your confidence came from the training, but you couldn’t seem to put it together in a competition. Now you had the missing piece — you had pushed through in a race, you actually did it —so your confidence built. You were also tough enough over the years to not quit the sport altogether when it took so long to get it working for you.

Steve: Yeah, and it started to get a little more fun too. It was now a race. It wasn’t just me going out trying to do my best and fearful of what might happen, particularly if I didn’t medal. I could now go out and say, ‘I’m going to go with this guy, and if he goes harder, I can go harder.’ It’s more of a game,

and it's more enjoyable; it makes racing a lot more fun.

Penny: Again that worked because you knew what you needed and wanted to do, overall, in any race. And you had lost that fear of thinking you were not capable of going hard throughout a whole 1000m.

Steve: Agreed.

1999

Penny: Now what about 1999? Pan American Games in Winnipeg and World Championships in Milan, Italy.

Steve: I wasn't really excited about racing at the Pan American Games. I did win C1 1000m and was second in C1 500m, but I didn't race very well. I was disappointed. It hurt me to race there. It was a week out of my training and I never felt like I was paddling very well from that point on. Even at the world championships, I didn't feel I was paddling well, but I was prepared to do my best. I wasn't panicking because I was world champion. But then, in the final, I had a false start that didn't get called. (Steve thought he had moved before the gun, so hesitated after the gun, expecting the race to be called back. It wasn't, but he had hesitated, and found himself behind).

Penny: And you're convinced that the poor start was just a mistake you made?

Steve: Yeah. There were things I probably could have done better. I do remember thinking during the week leading up to the final, 'I'm not feeling great so don't get your expectations too high. Go out there and go hard. Keep racing no matter what. If I come fifth, I come fifth.' Looking back, I probably should have tried a bit harder to figure out what it was that I was doing that wasn't

right. I had been thinking about it for weeks, and I couldn't make the training and the feeling click on the water. Sometimes you can't figure out whether it's training or whether it's technique.

Penny: If you could do that season over, what would you do differently to try to feel better on the water?

Steve: I don't know. I always kept trying, but I just never felt up to par. I hoped it would come together on race day - and sometimes that does happen. But it didn't in Milan.

2000

Steve: So then it was on to the year of the Sydney Olympics. I won a bronze medal. It was a good year.

Penny: One of the things you said to me in the time leading up to Sydney was that you felt there were six men who were capable of winning a medal in C1 1000m and you were one of those six. And if you raced your race the way you wanted to race, that would give you a really good chance of a being medalist.

Steve: Yeah, that was true, and that had been building for four years. I had some trouble in the spring of 2000 at the first selection trials. I didn't race well. I had some stomach problems and I wasn't eating very well. I was a little nervous. It was a selection race and selection races are always more stressful because you have to win — there is no way around that!

In those first trials, I was second in both 500m and 1000m - it was a big right's wind (advantage to those who paddle on the right. Steve paddles on the left). I think I raced pretty well considering the conditions. I was

upset, but not totally down and out. There was a second chance, a second set of trials. Max Boilard, who beat me at the first set of trials, hurt his shoulder so I ended up with selection for the Olympics in C1 1000m. In Europe we raced in Szeged, Hungary, and Duisberg, Germany, where I came second in both races. I watched the video of the Hungarian race and I thought, ‘What the hell are you doing out there?’ I was sitting up straight, with a stroke rate of about 65. I really didn’t think I was paddling very well. Then we had a training camp in Hungary and for three weeks I did video almost every day with Tamas (Tamas Buday, national canoe coach). After a week and a half, I felt like I was paddling well again. And I was. I had done video before, but not much. It was pretty boring in Hungary and there wasn’t much else to do so it was good. I saw a lot of video and got good feedback from Tamas. When I raced in Duisberg three weeks later, I did really well. I came second in 1000m and I think fifth in 500m. It was good. I was happy. I went home and had some good training with some team members. Then came Sydney.

Penny: So tell me about keeping things together for Sydney.

Steve: I decided that I couldn’t hide from the Olympics so I was preparing myself for them, trying to imagine what it would be like at the Olympics and going through my race plan over and over and over to make sure I had it clearly in my head. Again, I ran through it on the water after every workout, and then probably a few times a week I would sit down outside of practice and go over it. Once we got to Sydney it was everyday. I went to the opening ceremonies for the first time. Angela was there. We did some fun things even though I was training twice a day.

Penny: Tell me about the races.

Steve: I had a heat and a final in C1 1000m. The heat was easy, top three went straight to the final; everyone else went to semi-final. I knew I was in top six overall so there wasn’t a lot of pressure. I came second in my heat and then I had four days off before the final. I was nervous for the final but not too bad, and I didn’t get sick before going out for warm-up.

Penny: Take me through the race.

Steve: I was nervous, but not so nervous that I couldn’t do my warm-up, which had happened before. Sometimes in the past I had been so tight and tied up that I felt I couldn’t do the warm-up. But that wasn’t the case here. I felt good.

Penny: When you say you were nervous, what were you thinking and feeling?

Steve: Well, the expectations were there. I was thinking, ‘I really want to win that medal. This is probably my last chance.’ I allowed myself to feel those things because I had learned from the past, the hard way, that you can’t hide from those thoughts and feelings. When I started to feel those emotions or thoughts, I would remind myself to get my thoughts back in the small circle. *

Penny: That image of what you can control — your race plan and your cues — in the small circle, and almost everything else, all those expectations, winning a medal, the things you have little if any control over, in the bigger circle, did that image help?

** (The visual image of the two circles and their interconnection is helpful for athletes in understanding what to focus on and then in developing the ability to concentrate effectively on a consistent basis. The small*

circle is the focus, usually containing thoughts and feelings related to execution of the race or of a game strategy, specific technical cues and confidence-building thoughts, all of which are within an athlete's control if they are physically well-prepared. The bigger circle contains all the things that athletes cannot control, such as specific issues or conflicts they might be facing, expectations from themselves or from others, results, the wanting to win the medal. The interconnection between the two circles is the athletes' development of the ability to recognize when their thoughts are on outcome or in the bigger circle, and to then bring their thoughts and emotions back into the little circle because that is what they have control over. With that sense of control they can relax, breathe, and give their physical body the freedom to execute the well-learned skills).

Steve: Tremendously. That's the thing that helped me the most, because, as an athlete, you always get nervous.

Penny: Yes, it's helpful in understanding those almost inevitable feelings of nervousness, recognize that almost all athletes feel nervous before a competition - you are not the only one - and then find a way to accept and then put aside those feelings, those expectations, particularly thoughts around the outcome of the race (so they do not impact your performance negatively) and come back to a focus on your own execution of your race.

Steve: Yes. And the image of the big circle and the little circle helped so much, coming back to those things I could control. I put my race plan in the little circle. Whenever I started to get nervous and think about expectations and winning a medal, I would say, 'Ok, just go through points of my race' and that was enough to bring me back to

being more calm. Not serene, but calmer. Otherwise the nervousness is like a one-way train, and it just gets worse and worse.

In the Olympic final we came off the line, and the Russian, Opalev - I was in lane three and he was in lane eight - went out like a rocket. At one point I think he was three boats of open water ahead. I was in the lane next to Dittmar (the German) and I can see that Dittmar is ahead. But I'm not worried about it because I know that if I can stay with him I'm going to be ok. And I'm staying with him. And a number of other guys are also ahead of me, but it's a bit of a blur. So I'm thinking, 'Ok, I'm thinking sixth, fifth, but that's ok.' But there was a point there, between the 750m and the 500m mark where I started thinking, 'Well, you're coming fifth; this is all happening again. You're not going to win a medal. It's all going to get worse from here; it's all going to go bad.' Then I started thinking, 'So what. You're always saying you just want to go and race hard, so race hard for fifth and be happy with that. So that's what you are going to do.'

I could hear the guys on the shore pumping the horn (the horn from Senobe Canoe Club — a big blue box — a symbol of the race being near the end. They blew it for me in 1989 and I thought it would be great to have it in Sydney so I asked if I could bring it with me and they said yes). I came through the 500m mark and I said, 'Let's just go. Put your head down and race for fifth and see how many guys you can pass.' So I did. I didn't look over at all. I just went. I could see that I was catching people, but it was like a blur. I could tell I was gaining on people, but I didn't know if there were three guys over there or one guy. It turned out that it was just one. I passed him and that gave me a little boost to actually move up on people and pass them. I didn't know where I

was until I actually crossed the finish line. I knew I had a medal, and that was good, but I didn't know if I was second or third. Still, I was disappointed because I wanted to win. I thought I could have beaten Dittmar, but at the same time, this is the Olympics.

Penny: At the 500m mark of that 1000m race, when you started to doubt yourself, how did you turn that around? What was happening there?

Steve: There were a few strokes where I was definitely doubting myself, and I started to slow down, which was not in my race plan. Then I got back into it. The one thought I remember having was, 'I'm not leaving here disappointed. Whatever happens, do my best, whether I come third, fifth, sixth, ninth whatever. This is probably your last chance so ...' I remember in Barcelona (1992 Olympics) standing in the shower listening to the national anthems being played and thinking, 'If only I had done something different.' In this race I thought, 'I don't want that feeling. I want to be sitting watching the closing ceremonies knowing I did everything I could.' So that's what I did.

Penny: Did the race plan help in the first 500m when Obalov was so far out there, and you knew that?

Steve: For sure. I did stay pretty close to the race plan the whole way.

2001

Penny: How did 2001 go?

Steve: Well, this year has been a bit of a strange year. I've really been focused on school and doing well at that, trying to be my best at both school and paddling. At the worlds I was 5th in C1 1000m and eighth in C1 500m. There were times when I could

have trained more, but I was in school full time so I was willing to accept the consequences. I think I raced pretty well at the worlds.

Penny: What does the future hold for you?

Steve: Well, we're going to have a baby. It's a new challenge. It's something else that I can prove to people that you can go to school fulltime and have a baby - basically have other things in your life - and still compete at a world-class level. What I would really like to do is have the baby, graduate, get a full-time job and still keep training hard and doing really well at the world championships. I'm twenty-nine years old. I've been doing this for seventeen years. I don't need to train as hard as I used to. I don't need to beat myself up every day on the water. If I do it at the right times of the year, I'll be good.

Penny: Is there anything you want to add regarding the things that you have learned over the years of paddling and competing nationally and internationally?

Steve: The visual image of the big circle/little circle helped me a lot. It gave me a way to focus and a way to control my nervousness, not let it get away with me. When I look back, that is the one thing that worked for me. It might not work for everyone, but when I go out to schools and talk to kids, I tell them that this is what worked for me and they might want to try it.

Penny: It is a learning process, isn't it? I think it helps to have gone through some tough races, tough competitions, when things fall apart, to really understand, appreciate, and know all the aspects of what can be in that 'big circle' and why and how those aspects inevitably hurt your perform-

ance. But it does take time to fully appreciate that, it seems.

Steve: Yes, I agree. For a long time I thought the problem was my training program because for some reason I was getting to the world championships and I was not racing very well. Yeah, I was getting nervous, but big deal, that wasn't the problem, I thought I needed to train harder, and probably there was something to that. But really, the biggest part of my success was learning how to focus on the right thing, on the race, on the plan for my race.

Penny: Yes, and practicing those skills everyday in your training, physically and visually. It is a training process, and you trained your self to be 'in the small circle', 'in the execution of your race.' As a result, you were able to take in other information during the race, such as how other competitors were racing, which is relevant information, not panic, and be able to come back into your focus, your own race.

Steve: Yes, absolutely. For a lot of years I just said, 'Stop being so nervous.' But I just couldn't do it. In order to stop being nervous, I needed something else to think about. So a focus of key technical things within my race plan, within that small circle, is what I practiced and what worked for me. The other thing that helped me succeed was

learning how to work through that physical and psychological pain barrier of the 1000m.

Penny: And that happened initially in 1998, when you were sick for days prior to racing?

Steve: Yes, that's true. When I was a kid, I used to be able to go as hard as I could the whole way through the race and not think about the pain. But at some point I started worrying about the pain, and I got into a pattern, in Canada, where I didn't have to fight through it in order to win. For many years, when I got to the world championships, I wasn't well prepared at all for working past the pain, until that race in '98 where I broke through to the next level within a race, and moved through the pain to where I started to feel good again.

Penny: Those two aspects are very much related aren't they? Over the years you learned what to be focused on and how to effectively focus, and that, in turn, helped you keep going in 1000m when it started to hurt, because you had technical aspects of your race to focus on.

Steve: Yes.

Penny: Great, Steve. Thank you for your insightful analysis of how you developed into a great C1 paddler.

Insights for Delivering Mental Skills Training over the Web

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Abstract

Technological advances and the emergence of the World Wide Web (or web for short) have increased the opportunities for alternative delivery mechanisms of quality education. The effects are being seen in the field of sport psychology as practitioners and researchers start to use the web to deliver text-based information, market their products and services, communicate with athletes and others in the field, deliver online courses, engage in scholarly discussion, and share and disseminate research (Stodel & Farres, 2000). However, the full capacity of the web as an educational tool which athletes can use to facilitate the development of their mental skills has not yet been harnessed. In this paper, the concept of web-based mental skills training is examined and the potential of what it can become explored. The discussion is framed within the concepts of accessibility and interactivity; two defining features of the web.

In order to allow for concise writing style, the use of the term “athlete” will be employed in this paper to refer to all those who participate in exercise and physical activity. The authors would also like to note that web-based MST can be used by coaches, artistic performers, business professionals, and any other individuals interested in developing their mental skills.

The rapid development of the World Wide Web (or web for short) from a text-only medium to an expanding multimedia communication system has increased the opportunities for alternative delivery mechanisms of quality education. The University of Texas-Austin's web-site contains over 2,000 links to web-pages which are used in the delivery of university-level academic courses (<http://www.utexas.edu/world/lecture/index.html>). Already, advances in technology and the web are transforming education in the field of physical education (Goggin, Finkenberg, & Morrow, 1997; Martens, 1997). Practitioners and researchers in the field of sport psychology are beginning to explore how they can use the web to their advantage. Most are using the web to deliver text-based information, market their products and services, communicate with athletes and others in the field, deliver online courses, engage in scholarly discussion, and share and disseminate research (Stodel & Farres, 2000). However, the full capacity of the web as an interactive, dynamic educational tool has not yet been harnessed by those in the field. To date, we have been unable to find a fully interactive mental skills training (MST) community on the web that provides athletes with a collaborative learning environment supported by expert practitioners within which they can develop their mental skills.

The absence of such a resource on the web is a pity given that the web offers a convenient, flexible, and cost-effective means of education. Learners are able to learn whatever they want, whenever they want, wherever they want. Moreover, much of the educational appeal of the web comes from its capability to provide users with: (1) convenient access to a wide range of educational resources that they might otherwise not have access to, and (2) the

opportunity to interact with the learning environment so they are able to create a personally meaningful learning experience. Given the educational potential of the web, we question why MST specialists are not using the web more effectively as a means of educating athletes and facilitating the development of mental skills, and urge these professionals to start considering how they can best use the web to this end.

The web allows continuous access to MST. Indeed, it is generally advocated that MST be conducted by a qualified MST consultant over an extended period of time (Weinberg & Williams, 1998). However, Weinberg and Williams stated that this is “*rarely feasible except perhaps at the highest levels of competition (and even here it is still a rarity . . .)*” (p. 332). Often, the athletes and/or MST consultants cannot make the time commitment that is necessary for ongoing MST; the athletes, teams, or sport organisations may not have the necessary funds to sustain prolonged MST; or the geographical location of athletes, team members, and MST consultants present a barrier to the provision of long-term MST services (Weinberg & Williams, 1998). By offering MST on the web, athletes¹ would be afforded access to MST anytime and anywhere, thereby breaking down barriers which currently hinder the provision of long-term MST services to those who seek them.

Although many eminent MST consultants have stressed the importance of providing “sport psychology for all” (e.g., Gould, 1990; Weiss, 1998), it has been noted that much applied work is with elite performers (T. Orlick, personal communication, November 24, 1998) and sport psychology books seem “to be geared to the elite level” (Vealey, 1988, p. 321). The web can provide

large numbers of recreational and developing athletes who regularly participate in sport and exercise with a means of gaining access to MST services should they so wish. They can reap benefits from engaging in MST just as elite athletes do, though they may not yet be aware of the personal advantages of engaging in MST. This may be in part due to a lack of understanding about what MST is and what MST consultants do. Some think MST is “only applicable to elite athletes or that [MST] techniques can only fine tune the performance of the already highly skilled” (Weinberg & Williams, 1998, p. 331). Consequently, athletes and coaches not involved in high level competition may not seek out ways to engage in this type of training. However, the web can serve as an effective medium through which to educate athletes and coaches about what MST is and how it can benefit all levels of athletes. Indeed, what better medium exists if the goal is to reach a large number of diverse individuals? In January, 2000, the worldwide Internet population was estimated at 242 million and the number is growing exponentially.

Although there are problems currently associated with access to, and long-term provision of, MST services, there is growing interest in MST among all levels of athletes. This is reflected in the growing numbers of books, popular magazine articles, research publications, and more recently web-sites, which outline ways in which to enhance performance and control cognitive and affective responses through MST (e.g., Orlick, 1986, 2000; Ravizza & Osborne, 1991; Williams, 1998; www.competitivedge.com; www.mindtools.com; www.sportdoc.com; <http://www.zoneofexcellence.com/>). Moreover, sport-specific MST books targeted towards recreational athletes are becoming more prevalent on the shelves of

bookstores (e.g., Cogan & Vidmar, 1999; Gallwey, 1998; Rotella, 1995, 1996, 1997; Van Raalte & Silver-Bernstein, 1999). It is apparent that MST specialists are attempting to address the problem of access to MST through the print medium.

Although books make MST more available to athletes, they may be limited in their effectiveness as a tool for MST delivery. It appears that although books can be effective in educating consumers about psychological skills and techniques, many do not provide the necessary guidance to help the reader learn, acquire, and implement mental skills and MST techniques in a systematic fashion (Vealey, 1988). Vealey suggested that in order for this to occur, readers need to be engaged as “active participants” rather than “passive readers”. She recommended the use of implementation specialists, standardised MST programs, and video technology as means of promoting active learning and achieving this goal. Since Vealey’s recommendations over a decade ago, we have seen the emergence of the web. Its success as a powerful educational tool in diverse fields warrants its consideration as a mechanism through which to deliver MST. By creating opportunities for athletes to interact with both the material and other athletes on the web, not only will they be able to direct their own learning experience, but an active learning environment can be fostered. Consequently, web-based MST has the capacity to maximise the acquisition and application of mental skills and techniques.

The purpose of this paper is to explore the concept of web-based MST. This will be achieved through the consideration of two defining features of web-based learning, namely accessibility and interactivity. In doing this, the utility of creating web-based MST environments will be delineated. Some of the ideas presented in this paper have

been actualised, while others remain in our imagination. It should be noted that it is not an absence of technology that is preventing these concepts from being realised, the technology exists today. It is intended that this paper will stimulate thought and incite further interest in the concept of web-based MST. Given the ever-expanding range of possibilities presented with new technologies, it is important that MST practitioners become proactive in the development and use of technology in the MST process to ensure that it is the educational needs that drive the development of technology and not vice versa.

Accessibility

One of the attractions of web-based MST is accessibility. By creating a web-based MST environment, not only do more athletes have access to MST services, but it also provides them with an easy means of gaining access to an increasingly large number of MST resources

Availability of MST Services

Offering MST on the web increases the availability of MST services to athletes. Athletes who would not normally have access to these types of services because they live in remote locations, cannot afford it, or do not have a qualified MST consultant in their area, are able to log on to the web and receive expert advice for MST. Moreover, athletes who are on the road competing or training are still able to gain access to MST services regardless of their location or the time of day. In short, athletes can mentally train with expert guidance at home, in-between meetings at work, in their pyjamas on a Sunday morning, and in airports while waiting for their plane. There is no need for them to schedule a MST appointment into an already busy schedule, nor be inconvenienced with travel. They can

develop their skills whenever they have time. Not only does the web transcend geographical barriers, but communication on the web is not impacted by the inconvenience of time zones. Computer-mediated communication systems can support both real-time and delayed communication, which allows athletes and MST consultants on opposite sides of the world to communicate with each other whenever they want.

Aside from the convenience and flexibility of being able to engage in MST anytime and anywhere in web-based MST, it is a considerably cheaper means of gaining access to expert MST advice compared to paying consultants' hourly fees. The reduced costs associated with web-based MST makes MST available to athletes who cannot afford to pay consultants' high fees. This may also promote prolonged engagement with MST. In web-based MST, athletes may be required to pay an initial membership fee but then will have unlimited access to certain aspects of the MST services.

It is also reasonable to assume that there are a large number of athletes who would like to engage in MST but would not consider soliciting the services of a MST consultant because they do not consider themselves "serious athletes" or do not want others to know they are engaging in MST. Web-based MST would provide this group with an attractive alternative to "traditional" MST. A web-based MST environment can provide athletes with a non-threatening and novel approach to learning and MST.

Web-based learning environments also support different learning styles and consequently attract individuals who may not enter into a more traditional learning environment. Some individuals do not like reading books or do not learn effectively

from static text. Others are unable to learn effectively from listening to presentations or lectures. By engaging in web-based MST, athletes are able to learn by reading, listening, watching, and interacting with the material and other users. The choice is theirs, they can choose to engage in the learning activities that suit their learning preferences. For example, athletes could have the option of reading information about a particular MST technique, listening to an audio clip of someone presenting this information, watching a video segment of two athletes discussing the use of the technique, and then using that technique themselves. They can communicate with other athletes about their MST experiences and discuss how they have used and adapted techniques to meet their needs. Interactive exercises and games can also provide athletes with an enjoyable way to develop mental skills.

The web also allows MST consultants to work with a larger number of athletes. During one hour, a MST consultant can consult with one athlete in a face-to-face individualised consulting session, 20 to 30 athletes in a group seminar, but over the web, there is no limit to the number of athletes that can log on at any one time to engage in certain aspects of MST. Increasing the number of athletes involved in MST could have a profound impact on the quality of sport experiences and the psychological and physical well-being of the population in general. As MST consultants, our goal is to help athletes of all abilities, young and old, develop mental skills which facilitate performance enhancement as well as enjoyment and satisfaction of sport (Bull, 1991; Cox, 1994). In a web-based MST environment, these goals should remain the same. Fostering enjoyment through MST will increase the likelihood that athletes remain involved in sport and physical

activity and have positive sport experiences (Battista, 1990; Frederick, Morrison, & Manning, 1996; Scanlan & Simons, 1992; Stodel, 2000; Weiss & Chaumeton, 1992). When one considers the psychological and physical benefits associated with sport and physical activity, the importance of achieving these goals becomes paramount.

Access to MST Resources

Not only does the web allow more athletes to gain access to MST services, but it also acts as a vast and dynamic resource centre. Indeed, the web provides learners with access to otherwise unattainable resources. Through the web, athletes are afforded immediate access to an unlimited number of MST resources from all over the world. Khan (1997) argued that this “rapid access to resources can promote higher levels of . . . involvement and motivation” (p. 12). These resources can come in the form of text, graphics, animation, audio- and video-clips, hypermedia, and human interactions.

Athletes are able to obtain an enormous amount of information about MST ranging from researched theory to practical application. For example, they can learn about what MST is, the theories behind MST techniques, how to employ MST strategies, and how to create their own individualised MST program. Aside from gaining access to a vast archive of information, athletes are able to engage in a number of interactive MST exercises, listen to audio-clips, and watch videos to facilitate the development of their mental skills. A variety of evaluation and feedback sheets which athletes can tailor to meet their needs will allow them to assess and monitor their progress.

Unlike CD-ROMS and books, resources on the web are easy to update and therefore a store of information can exist which grows

over time. Consequently, a large data base of sport-specific examples and feedback sheets, MST strategies, interactive exercises, and information can be created, adapted, and developed. Interviews, guest lectures, and discussions can be saved in audio, visual, or text format and revisited at any time. Moreover, the latest research and literature in the field of sport psychology can be presented, allowing athletes, coaches, and MST consultants alike to keep up with MST advances.

In addition to providing athletes with diverse MST materials, the web enables athletes to communicate with other athletes, coaches, and MST consultants from around the world. Experiences, mental challenges, expertise, problems, and solutions can be shared with individuals from diverse sports and with different abilities and sporting backgrounds. Relationships can be developed with individuals from different countries or different regions within their own country. In this way, athletes are provided with an international, global experience without the cost of travelling abroad (Bailey & Cotlar, 1994). This broadens the learning experience by allowing athletes to develop an understanding of other cultures and develop cross-cultural interpersonal skills. Through this experience, athletes with different cultural backgrounds are able to explore, experience, and better understand each other. They are also able to gain insight into how other cultures approach MST.

Within a web-based MST environment, athletes can consult with MST consultants and receive individualised expert advice and guidance. An advantage of web-based MST is that contact between the MST consultant and athlete is ongoing. Communication can be sustained over a long period of time and is not confined to the time boundaries of a

consulting session. Again, this supports the provision of long-term MST services.

Athletes can also benefit from experiential learning on the web (Polyson, Saltzberg, & Godwin-Jones, 1996). Virtual situations and places can be created and then visited so athletes are able to experience places that they have never been to. Competition sites can be actualised on the web thereby allowing athletes to become familiar with the environment prior to their competition. This may be helpful in preparing athletes for competition whether they be future Olympians or recreational golfers playing a new course. Familiarity with courses and sites of upcoming competitions can be fostered which will allow athletes to develop detailed competition plans and engage in situation-specific imagery.

The web allows us to create a virtual training centre. Athletes can access other services directly from the MST environment. Links to National Sporting Organisation or club web-sites allows athletes to gain information about upcoming competitions, results, rankings, and other events. Athletes can also link to sites that provide information in other sport science fields (e.g., nutrition, strength training). Indeed, athletes can buy their equipment and athletic clothing online and gain access to bookstores and publishers where they can read online book reviews and make purchases.

In effect, the web enables athletes to communicate with individuals they would not normally come into contact with, provides access to otherwise unattainable resources, and supports the creation of virtual realities. This adds a depth and richness to the learning experience that would not otherwise exist.

Interactivity

The transformation of the Internet from a text-based communications medium to a multi-media phenomenon, has expanded the possibilities for fostering interactivity. In this section, the types of interactions the web can support will be presented and the importance of designing web-based MST environments which maximise opportunities for interaction will be highlighted.

Types of Interaction

The web can support two different types of interaction: interactions between the users and the learning material and interactions between and among the users. In a web-based MST environment, athletes are able to interact with the material that is on the web and therefore intentionally navigate their way through the material. In this way, they are able to access the resources that will help them achieve their goals and meet their needs. By stopping, rewinding, and fast-forwarding video- and audio-clips athletes have opportunities to reflect and process information. Engaging in practical exercises, planning and problem solving directly on the web allows athletes to receive immediate feedback on their progress. Opportunities for online journaling, completing online mental skills assessment forms, and creating performance profiles allow data to be stored and used to track athletes' mental skill development.

Not only can interactions occur between the user and the material, but also among the users. Athletes, coaches, MST consultants, and other experts are able to communicate and collaborate with each other. Interactions can be public or individualised and personal. They can be synchronous or asynchronous. Synchronous interactions take place in real-time, all users are online at the same time although not necessarily in the same location. The time for reflection during the

process is minimal, but the feedback and information are immediate and spontaneity is promoted (Berge, 1999; Welsh, 1997). Synchronous interactions can be supported by the following components: chat rooms, audio-conferencing, application sharing/whiteboarding, and video-conferencing (see Table1). Conversely, asynchronous interactions do not require users to be online simultaneously. The users can respond to messages and participate in discussions at their own convenience with no need to coordinate time schedules. In asynchronous interactions there is more time to assimilate and reflect on the information and there is no immediate pressure to respond (Berge, 1998, 1999). Asynchronous interactions can be supported by the following components: E-mail, listservs, and threaded discussions.

Using these communication tools, virtual communities can be created on the web. A virtual community is a community which is not constrained by physical boundaries (McLellan, 1997). Rheingold (1993) described virtual communities as “social aggregations that emerge from the [web] when enough people carry on . . . public discussions long enough, with sufficient human feeling, to form webs of personal relationships in cyberspace” (p. 9). The members of virtual communities are able to “engage in a wide range of discussion topics with their peers and leading authorities in the field” (Khan, 1997, p. 18). By creating a virtual MST community, athletes are able to interact with each other and benefit from multiple perspectives. They are able to engage in intellectual discourse, exchange knowledge, share experiences, share mental challenges, brainstorm for solutions, share emotional support, meet new people, and make new friends.

Table 1
Examples of Computer-Mediated Communication Tools (adapted from Driscoll, 1998)

Communication type	Description
Synchronous	
Chat rooms	Chat rooms support real-time text-based conferencing between two or more users.
Audio-conferencing	Real-time audio allows users to conduct a voice-based conversation over the Internet. It is often used in combination with visuals to enable users to talk to teach other while sharing graphics, images, videos, and animation related to the topic.
Application sharing/ Whiteboarding	Application sharing allows users to work collaboratively on a software application. It is frequently done in combination with other synchronous interactions such as text chat and real-time audio.
Video-conferencing	Video-conferencing involves the transmission of audio and video images to multiple users via the Internet.
Asynchronous	
E-mail	Electronic mail enables users to send and receive text-based messages over the Internet.
Listserv	A listserv is a software product that manages E-mail among a group of people. The user sends a message addressed to the list and the server forwards that message to all the list members.
Threaded discussion	In a threaded discussion, one user posts a message to open up a topic for discussion. This is called a thread. Other users can then respond to that thread or start a new thread of their own. Threaded discussions are unlike E-mail and listservs in that they require the user to log on to the discussion, messages are not delivered directly to their account.

The ways in which a virtual MST community may benefit athletes are diverse. Specifically, a virtual community could be used as a tool for team building. Carron and Dennis (1998) suggested that by providing athletes with opportunities for interaction

and communication the development of team cohesion can be speeded up. This is important as Orlick (2000) stated that team harmony is “a worthy goal not only because of the way it makes you and other people feel, but also because it leads to improved

performance for all team members” (p. 203). By creating a virtual team community on the web, team members who may be separated by distance and do not have the opportunity to train together, as is the case with many National team athletes, are provided with the chance to get to know each other, develop friendships, create a support system for training, and experience feelings of closeness and connectedness.

Combinations of synchronous and asynchronous communication tools allow athletes to “attend” guest lectures and engage in question and answer sessions regardless of when and where the presentation is delivered. Moreover, panel discussions can be organised. For example, using audio clips, video-conferencing, or a simple text-based position statement, a group of expert MST consultants, coaches, and athletes could address a specific topic. Topics might include the relative merits and pitfalls of using internal versus external imagery for achieving different objectives, the different uses of self-talk, or the effects of music on athletic performance. Once the experts had presented their views, athletes could direct questions specifically to one or more of the panel members through the use of a threaded discussion. In this way, the discussion could progress for weeks or months. Discussions such as these grow quickly, ideas expand exponentially, new concepts are explored, and a greater depth is added to the learning experience. Interactions of these types are great stimuli for thought and learning.

Importance of Interactions

Interactivity is one feature of web-based learning that attracts educators. Unfortunately, all too often, teachers attempt to transpose what they do in their classrooms onto the web without redesigning it and

taking advantage of the extant advances in technology. This often results in the creation of a passive learning environment where the extent of the interactivity is limited to turning pages of text-based page information and linking to other sites. Consequently, it is important that opportunities for interaction are created when designing web-based MST environments (Farres & Stodel, 2002). Interactions are important because they enable active learner participation in the instructional/training/performance improvement process. They allow learners to tailor learning experiences to meet their specific needs or abilities. Interactions enable clarification and transfer of new ideas to already held concept frameworks. Interactions promote intrinsic motivation on the part of the learner by highlighting the relevancy that new information may have under specific circumstances. (Wagner, 1997, p. 21-22)

Designing interactive web-based MST environments encourages athletes to become actively involved in the learning process. By participating in, and interacting with, the environment they are able to construct knowledge which is meaningful to them. This approach aligns with the constructivist philosophy of learning and is in contrast to traditional teaching approaches where learners take on a more passive role. By providing opportunities for reflection, communication, collaboration, negotiation, and problem-based thinking in web-based MST, athletes can process information and construct knowledge in meaningful ways so they are able to find and apply it when needed, thereby increasing the acquisition and application of mental skills and methods. Indeed, the constructivist approach seems to be the favoured approach for web-based learning (Hill, 1997; Jonassen, 1994; Jonassen, Peck, & Wilson, 1999; Relan & Gillani, 1997).

Not only is interactivity a prerequisite for active learning, but it also allows learners to direct their own learning experience. In a web-based learning environment there is no predetermined direction that the learners must follow (Polyson et al., 1996). Consequently, by delivering MST on the web, an athlete-centred approach to MST can be supported. Athletes can navigate their way through the MST at their own speed so they can acquire knowledge and develop skills at their own pace. They can set their own learning goals, choose the material they wish to learn, the skills they wish to develop, the time they want to engage in this learning, the type and amount of feedback they desire, and the media format with which they wish to learn (e.g., text, chat, audio, visual, animation). This will allow the athletes to perceive that they are engaged in MST designed specifically for them. In short, in web-based MST the athlete influences what is learned, how it is learned, and when it is learned (Khan, 1997).

Interactions also allow athletes to obtain feedback on their mental skill development. By engaging in interactive exercises, online assessments of their skills, and keeping an online journal, they can monitor and evaluate the progress of their skill development. Through online consultations they can also obtain feedback on their progress from expert MST consultants. Discussion and collaboration with other athletes also provides them with further opportunities to obtain feedback on their learning.

Not only can this feedback be a source of motivation for learning (Berge, 1998; Fischman & Oxendine, 1998), but interactions themselves can increase a learner's motivation to learn (Khan, 1997; Wagner, 1997). Interactions allow learners to become engaged in the learning process.

Moreover, meeting new people and being able to discuss experiences can also provide encouragement for learning.

To conclude, by allowing athletes to interact with the material on the web as well as with other users, the athletes are more likely to have a quality MST experience. Interactions encourage active learning, allow the athlete to direct their MST experience, maximise opportunities for feedback, and increase motivation to learn and acquire new skills.

Future Directions

The capabilities of the web to support interactivity and make MST services and resources easily accessible to a wide range of athletes make it an attractive and viable option for delivering MST. However, as of yet, no one in the field of sport psychology has taken full advantage of what the web has to offer and created fully interactive web-based MST which will maximise the acquisition and application of mental skills and MST techniques over an extended period of time. Given the appeal of web-based MST, we need to consider what is preventing MST specialists from developing such sites and how we can encourage and support such development.

There is no doubt that developing such an environment is a complex endeavour that will require time, money, and technical expertise. The development of partnerships with technical experts, universities, and private-industry may be viable means through which to address these issues. Moreover, as with all forms of MST, careful consideration needs to be given to the ethical standards outlined by governing bodies such as the Association for the Advancement of Applied Sport Psychology and the American Psychological Association. Issues of professionalism, quality control, confidentiality, and general

athlete care need to be considered. These barriers are not insurmountable. Why not embrace this vision and place the field of sport psychology and mental skills training on the cutting edge?

Farres and Stodel (2002) presented a comprehensive framework to guide the design of effective web-based MST environments. The framework was grounded in theories of web-based learning and sport psychology and highlights the importance of considering consulting philosophy, professional development, use of technology, consulting strategies, professional ethics, athletes' needs, and type and degree of interactivity when developing web-based MST. Farres and Stodel's framework represents only the first step towards systematic exploration of the web-based MST concept. Further research and educational implications need to be conducted in this area to guide our understanding. For example, the effective-

ness of web-based MST in facilitating the development of mental skills and the acquisition and application of MST methods and techniques needs to be examined. Program outcomes with respect to enhancing performance as well as cognitive, affective, and behavioural performance correlates (e.g., enjoyment, motivation, confidence) also need to be assessed. Of equal importance is the consideration of the athletes' experiences with web-based MST.

In 1998, Nideffer and Sagal stated that the use of multi-media in MST is "clearly just the beginning" (p. 313). The number of possibilities the web now affords MST and the field of sport psychology is boundless. They are limited only by one's imagination and the current conception of what MST is and how it should be offered. We need to begin by challenging our conceptions and opening our imaginations.

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