

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

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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

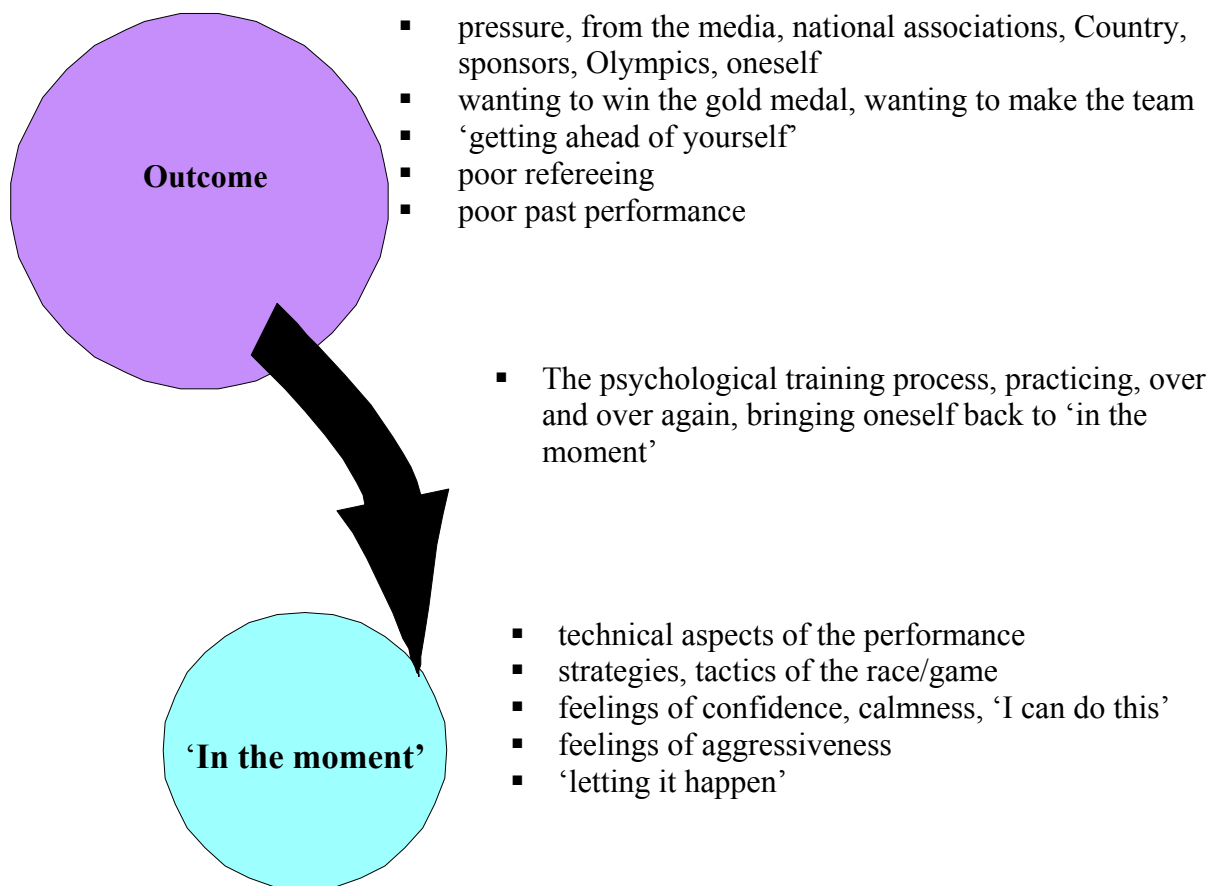
each athlete brings from their life inside and outside sport, as well as the requirements of the sport and event in which they perform. The content of each of the circles may vary from athlete to athlete and competition to competition, depending upon the athlete’s changing perception of the stresses 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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