

## Mental Strategies of Elite Mount Everest Climbers

Shaunna **Burke** and Terry **Orlick**, University of Ottawa

Shaunna Burke was a former member of the Quebec alpine ski team, represented Canada at the World University Games, was on a skiing scholarship at Sierra Nevada College (U.S.A.), completed her Master's degree with Terry Orlick, is now pursuing a Doctorate in Sport Psychology at the University of Ottawa and currently training to climb Mount Everest in the spring of 2004.

Email: [shaunnaburke@hotmail.com](mailto:shaunnaburke@hotmail.com)

Terry Orlick is a performance and life enhancement specialist with the School of Human Kinetics, University of Ottawa, Ottawa, Canada K1N 6N5

Email: [excel@zoneofexcellence.com](mailto:excel@zoneofexcellence.com)

### Abstract

This study explored the mental strategies used by elite Mount Everest climbers to prepare for and overcome obstacles while climbing the mountain. Individual interviews were carried out with 10 elite climbers who successfully reached the summit of Mount Everest. High altitude climbing differs from many other pursuits because of the constant threat of danger and potential death. Common strategies of success were identified, as well as factors that created the greatest challenges on the mountain. This study provided meaningful insights into how these elite high altitude climbers mentally prepared for the climb and maintained an effective focus on the mountain. The main areas addressed include detailed planning, mental toughness, focusing, mental imagery, short-term goal setting and belief in one's capacities. This article presents practical suggestions that can be applied by other high altitude climbers, or anyone else in pursuit of a big vision or extremely difficult goal.

### Introduction

The number of athletes partaking in extreme sports is continually rising (Shoham, 2000). Extreme sports, such as high altitude climbing, deep sea diving, and skydiving include a high level of physical risk. In such sports, the consequences of error can be fatal. High-risk sports differ from other sports in that participants knowingly face the risk of a serious injury and even death when judgment or equipment fails (Lyng, 1990). The physical and mental demands of high-risk sports are high (Ryn, 1988). Many of these sports involve dangerous elements,

such as severe weather or high speeds. These dangers create intense challenges for the athlete. An increasing number of people are becoming attracted to the risks, as well as the physical and mental tests associated with extreme sports. The rise of active participation in extreme sports is reflected through new television shows such as Extreme 180, and magazines such as Rock and Ice and Extreme Skiing.

High altitude climbing is a prime example of an extreme sport that has become an appealing challenge for an increasing number of people (Ryn, 1988). It is widely recog-

nized that high altitude alone exacts a very heavy toll from a person's energy and resources, both physical and mental (Emerson, 1966). According to Bahrke & Shukitt-Hale (1993) lassitude, weakness, breathlessness, and retardation of thought and action were the principal effects of high altitude, and were always present over 5485 meters. Furthermore, climbers who attempt to summit an 8000 meter peak may be exposed to environmental obstacles such as avalanches and extreme weather conditions. They may also be faced with internal barriers such as fatigue, intimidation, and loss of focus or will. High altitude climbing is a complex, high risk, high endurance sport. Effective mental strategies are required to successfully complete the challenge.

Elite athletes across a wide range of sports have been found to possess certain mental strategies related to exceptional levels of performance. In a study carried out by Orlick and Partington (1988), statistically significant links were found between Olympic performance outcome and certain mental skills among elite athletes in 23 summer Olympic Games events. Common elements of success were identified as quality preparation/training, setting clear goals, imagery, simulation training, mental preparation for competitions, focus, and on going learning. In another study on psychological skills and exceptional athletic performance the authors found that relative to their non- elite peers, national level athletes across 17 sports reported stronger skills in anxiety management, concentration, motivation, mental preparation, and self-confidence (Mahoney, Gabriel, & Perkins, 1987). According to Orlick (2000), there are seven critical elements of excellence that guide the pursuit of performance excellence on a consistent basis: commitment, focused connection, confidence, positive images, mental readiness, distraction control, and ongoing learning.

These mental components have been found to help elite athletes excel in a variety of domains.

The challenge of climbing Mount Everest, the highest mountain in the world (8848 meters), has continued to gain popularity ever since Sir Edmund Hilary and Tenzing Norguays' first ascent to the summit in 1953. Every year, groups of elite mountain climbers from around the world set out to reach the top of the mountain and solo attempts are also made. An average climb to the top of Mount Everest takes two months, including periods for rest and acclimatization. It requires about a week of trekking through the mountains just to reach base camp. Once climbers have set up camp at the base of the mountain, they will go through four more camps (one, two, three, four) and then try to reach the summit. After reaching a camp (one, two, and three), the climbers will return to the previous one (for a couple of days) to allow their bodies to properly adjust to the altitude. The final push to the summit requires that the climbers wait for a window of opportunity, due to the weather, and attempt to climb from camp four to the summit. Only a small percentage of people who set out to climb Mount Everest successfully reach the summit. According to Egan (2001) over 300 climbers making this attempt died in the pursuit. Some reasons for failure include death, high altitude sickness, loss of will, loss of focus, injury, fatigue, and extreme weather conditions. With the inherent risk and potential for serious injury or death, it is believed that tremendous physical endurance and mental strength are essential for such a climb to be successful.

Previous studies have largely ignored the mental strategies used by elite climbers. The majority of research on mountain climbers has focused on sensation seeking needs

(Breivik, 1996; Freixanet, 1991; Rossi & Cereatti, 1993) and on the personality profiles of climbers (Breivik, 1996; Freixanet, 1991), as well as on the psychological effects of high altitude (Ryn, 1988). Research on the mental strategies used by high altitude climbers is lacking and warranted. By exploring the specific mental strategies used by elite Everest climbers, insights were gained that can help other climbers, and performers in other high-risk domains.

### **Method**

Seven male and three female elite Mount Everest climbers participated in this study. All participants successfully reached the summit of Mount Everest at least once. Their age ranged from 29 to 65 years ( $M=38.2$ ) at the time they reached the summit. The participants included one solo climber, three expedition leaders, and six climbers from various group expeditions. In terms of country of origin, 40% of the participants were from Canada, 40% from the United States, 10% from Sweden, and 10% from Pakistan.

Individual interviews were arranged through personal contacts. The researcher informed each participant about the purpose of the study. After the participants agreed to take part in the study, arrangements were made to conduct interviews at the participants' convenience. One 60 -90 minute recorded interview was conducted with each participant. The questions were predominately open ended which enabled participants to express themselves without feeling constrained.

### **Data Analysis**

All interviews were audiotaped and transcribed verbatim. A copy of each participant's transcript was sent to him or her and each participant confirmed that the information accurately reflected their perceptions.

The purpose of the data analysis was to understand and accurately report the participants' experiences and realities, particularly with respect to the role that mental strategies played in a successful climb. The initial step in the qualitative data analysis involved being fully absorbed in the interview, listening to the interview tapes, being fully engaged in the process of transcribing each interview and reading the interview transcripts (Maxwell, 1996). The next step involved re-reading each transcript carefully, highlighting areas where mental skills or mental strategies were mentioned or discussed, and then assigning a temporary name or label to each mental strategy. The first and second author of this paper worked collaboratively to code individual responses into categories that brought together similar ideas, concepts, or themes (Rubin & Rubin, 1995).

### **Results**

The results from the 10 interviews revealed that elite Everest climbers used various mental strategies to prepare for the climb, successfully climb to the summit, and safely descend the mountain. These climbers also faced and successfully overcame various obstacles on the mountain. Themes that emerged from their interviews are discussed in conjunction with direct quotes from the climbers in order to preserve the participants' realities in their own words. Their mental strategies are presented below in three phases of the climb : the preparation phase, the ascent, and the descent.(see Figure 1).

#### **Preparation phase**

Effective mental preparation for climbing Mount Everest is crucial to the success of reaching the summit. All 10 participants spoke of the importance of preparing for the challenge mentally, as well as physically and logistically. The most prominent mental strategies used by the climbers during the

preparation phase included detailed planning, imagery, and developing mental strength.

### **Detailed Planning**

Part of what allows successful Everest climbers to stay focused and remain confident on the mountain is their commitment to thoroughly plan for the adventure. The actual climb takes about two months, including various acclimatization stages, rest days, and the final push to the summit. Climbers must remain focused, committed, and healthy for a prolonged period of time to be successful. To increase their chances of being successful, all of 10 climbers began planning for the expedition years ahead of time. Climbers were asked to share their preparation activities prior to climbing Mount Everest. Many spoke of detailed logistical planning, as a key component for being successful and completely prepared for the expedition.

*I ran through the whole expedition in my head from start to finish a year ahead of time. I thought about how much food we were bringing, what would be the twelve and a half tons of gear and food we would need to bring on the mountain, how it would all unfold from permits to hiring the porters to bringing it all to base camp, what the schedule would be at base camp, how would we live out the two and a half months on the mountain, and the Khumbu icefall. I basically planned the whole climb before leaving for the Himalayas. I then relived it in my head day after day. (Climber 10).*

*I believe that it is all about the planning and preparation. Understanding what you are getting into and understanding to a point that it is intuitive. Everything that you are doing you don't want to have to think about it, you want to do it*

*naturally. Building in redundancy and contingency factors should you come across a set back you can step back and assess the obstacle and deal with it because you planned it out thoroughly. I learned everything I had to learn about the subject matter in order to eliminate possible setbacks. (Climber 5)*

### **Imagery**

Closely related to the strategy of planning is imagery. 'Seeing' and 'feeling' themselves execute certain moves or strategies was a common practice in mental preparation prior to the actual climb. Climbers reported using imagery as a strategy to help them perform through difficult phases on the mountain.

*I imagined myself on the summit. I also saw myself climbing and having a positive outlook getting there. (Climber3)*

*I imagined myself getting to certain places on the mountain. I imagined how I was going to get to the Hilary Step, what I was going to feel like even though I couldn't actually feel the emotion or the physical hurt because it was all in my head. I imagined what I was going to feel like, so when I got to that state and that was how I felt I would know what it is and keep going. (Climber 10)*

*I would see myself walking up to the summit. And then I would see myself on the top of the mountain." (Climber 7)*

*I visualized a hard day climbing. Climbing a mountain is one step at a time. I visualized one step at a time. (Climber 8)*

## Developing Mental Strength

Another mental strategy used by climbers to prepare themselves for the climb was committing themselves to develop their mental strength. For example in training, these climbers spoke of frequently increasing their physical limits and the level of their discomfort. They felt that pushing themselves physically and mentally enabled them to gain emotional strength and in turn, develop the mental toughness needed for the Everest challenge. This preparation strategy was believed to be a crucial element required to successfully climb the mountain. When the participants were faced with obstacles that could have impeded their success they relied on their previous experience and mental strength to overcome the potential setbacks.

*I would consciously push myself in training. I would run up Sulfer mountain after a day of climbing and I would push my time. Or, when I would run and cycle and I reached the point where I had enough, and I wanted to back off, I would push that threshold. Pushing that threshold affected the way I climbed mountains. When I was climbing in 1985 I was hit by a rock on the first day and it broke my shoulder. I didn't know that at the time and I still kept climbing as I thought I should be able to work through the pain and push the pain and discomfort. I thought that it would be a lot worse on big mountains. So, I would push that threshold. (Climber 4)*

*...and that comes with past experience where you were able to get through things: to have the strength to say yes. The greatest most single thing is to experience hardship. And, I have suffered a lot on other expeditions before going to Everest. People often ask me what it*

*takes to do Everest and to be honest it is a life time of suffering. That is what you draw on, that ability to say I can sustain the suffering. Climbing Everest is like an aching tiredness that goes right into the depths of your soul. So, the first time hardship shows up on Everest, and it is a very long suffering period, you are able to endure because you say yes I have suffered like this before and I have suffered for protracted periods of time. (Climber 1)*

## The Ascent

Successful Everest climbers incorporated various mental strategies on the climb to the summit (see table 1). Climbers were asked to share some of their thoughts and feelings, from the time they left base camp to the moment they reached the summit. They were also asked to talk about the obstacles they faced and how they overcame those challenges to reach the summit. These elite Everest climbers reached their ultimate goal largely because of their mental toughness, focusing skills, short-term goals, a connection with their bodies, team support, imagery based on successful past experience, and confidence in their abilities to reach the summit. All climbers experienced extremely challenging obstacles on the mountain, such as oxygen depletion, high winds, extreme cold, exhaustion, fear, and conflict with other climbers. All were successful at overcoming these obstacles with the help of the following mental strategies and perspectives.

## Mental Toughness

In preparing for the climb all the participants spoke of the importance of developing mental strength. Their mental strength was clearly evident in overcoming obstacles on the mountain. All 10 climbers had the ability to endure the emotional discomfort and con-

tinue climbing through the physical strains induced by the lengthy stay at high altitude.

*I believe that being mentally tough is the most important skill when climbing Mount Everest. Because of all the pain and discomfort involved you have to be able to endure. And this skill is unique to climbing because in no other sport is there so much discomfort and potential for tragedy. From cold weather, 24/7 to extreme periods of fatigue, on the summit push we climbed about 15 hours straight and that was throughout the night, you have to be strong psychologically (Climber 4)*

*I think that all three elements – emotional, mental, and physical are important. The emotional and mental can be more important. What you need is the desire and the ability to focus on the task. The success rate on Everest is miniscule. There are lots of reasons for that. Having all three at the same time, being strong emotionally, mentally, and physically are needed for a successful bid, as well as a dash of luck! (Climber 10)*

*I would say that mental toughness is one of the most critical elements needed to climb high altitude peaks. It really is not easy when you are above 7000 meters, your body really isn't acclimatizing at that altitude so you are not feeling good, you are not sleeping well, normally you do not eat well. Being strong mentally and putting up with the discomfort helps a lot with your success. (Climber 2)*

## **Focusing**

These climbers were extremely skilled at focusing on the right things at the right time, on the mountain. They all spoke about how important focusing was in helping them per-

form through obstacles during the eight week climb to the summit of Mount Everest. Focusing included getting into a zone, breathing, monitoring their pace, directing their physical and mental energy to the immediate challenge in front of them, and riveting their attention to the task at hand. Their focus was very much engaged in the step by step process. Focusing allowed these climbers to eliminate distractions, keep concentrated on the task at hand, and achieve their day-by-day, moment-by-moment objectives.

*Very few times on Everest would I ever let emotion in. Down in base camp hanging out in my tent, I would have memories of my wife and son, such as cards or letters. That was a safe point. You could allow your guard down. On the mountain you couldn't. There was too much responsibility for yourself and for others. You had to stay focused. To know me is to know that you won't find a more competitive, focused, and determined person. (Climber 5)*

*One thing I will say about myself is that most people see me as driven, and a lot of male mountaineers view me as driven. Yes I am driven. Climbing Everest is a lot of time, money, and involvement. So, I am very driven. But more importantly is my focus. In my younger years I competed at the international level in mountain biking so I have the ability to focus. I take climbing very seriously. I stick to the task at hand, that is my motto (Climber 4).*

*I visualized one step at a time. Climbing a mountain is one step at a time. You definitely want to be focused on summiting, but you really need to focus on the day to day and that is the key to being successful. Performing well and do-*

*ing the right thing each day to prepare yourself mentally and physically for the climb gets you to the summit. You can't focus only on the summit. It is kind of like the forest metaphor and the trees. You have to look at what is in front of you. You have to look at the pine needles before you look at the tree, before you look at the whole forest. I have seen climbers who are so focused on the summit that they can't focus on doing a good job and getting through the ice fall safely. You have to be strong, healthy, and hydrated and focus on eating and sleeping and resting enough. (Climber 8)*

*Summit night is like a dream walk, your brain is functioning on its most basic levels, your mind riveted on the task at hand – to keep moving your feet, to breath purposefully, to not stop until you can go no higher. (Climber 6)*

*We have the next 9 or 10 hours of climbing to do so I just focused on my breathing and on my heart beat. I got into a zone and everything just started falling into place. Before I knew it I was just climbing, climbing like a machine playing music in my head. I paid attention to my heart beating as I played music in my head breathing and keeping the beat going. The hours would pass, one hour after the next trying to climb through the cold until finally the morning came. (Climber 10)*

While speaking about maintaining an effective focus on the mountain, some of the climbers also discussed how they were able to redefine pain, accept discomfort and focus this information in constructive ways. This kind of focusing which often originated from connecting with their bodies helped them get through some extremely physically demanding phases on the mountain.

*I experienced a great deal of discomfort. Altitude is discomfort. The first couple of times in altitude were the worst because I was unsettled and stressed by the discomfort. By the time I got to Everest I had got my acclimatization and my response to pain down to a science. In fact the strategy of living and thriving at altitude was part of the appeal of climbing in these big places for me. I learned to perceive pain as information not necessarily as the warning alarms we were programmed to think it was. I would respond to the information by slowing down, drinking more, altering my sleeping arrangements, or eating more. The biggest challenge was discerning the harmless pain from the warning bells. What is danger pain and what is just plain discomfort? More experience led to more confidence in my ability to judge. (Climber 7)*

*...I would not call it suffering, I would call it discomfort. For example, if you are competing in a race, there is a difference between discomfort and pain. The pain is if you are injured and something is really wrong and you shouldn't be racing. In high altitude climbing however, discomfort is a normal part of the game and I believe in accepting the discomfort as a normal part of the feel on the mountain. (Climber 4)*

*I believe that high altitude climbers need to make friends with the discomfort and suffering involved on the climb. For me, experiencing and embracing the pain makes me feel alive. And, when I feel alive and vibrant I push forward. Accepting and thriving off the pain helped me get through the challenges I faced on the mountain. (climber 6)*

## Short Term Goal-Setting

These climbers spoke of the importance of setting short-term goals while climbing the mountain. They set specific, relevant, daily goals through the entire expedition to the summit. The climbers felt that short-term goals were crucial to their success on the mountain, because this ongoing process enabled them to remain focused on the task at hand, and to not become overwhelmed by the size of the goal or of the immenseness of the experience. Short-term goals helped these climbers stay focused and committed to the ultimate goal of reaching the summit and coming back down alive.

*Some climbers put their goals in the wrong place. They put it on the top of the mountain. You should really make your ultimate goal to come back to base camp. It is important to reach the top, however when it is too dangerous to continue you should be able to turn around even if you are close to your objective. Also it is important to set little goals along the way. (Climber 7)*

*Don't aim for the end goal just yet, because you have to go through all the obstacles along the way. I always kept that in mind. I said to myself, I am going for the top, that is my goal, but I am going to go through it step by step. From that step, I am going to go on to the next step and so on, all the way to the Hilary Step. (Climber 6)*

## Remembering Lessons From Past Experiences

Some climbers talked about the importance of drawing on past experiences in order to persist through the struggles and difficult moments on the mountain. They spoke about learning from each past climbing experience, by drawing out insights or lessons

to help them prepare for potential tough conditions in this expedition. Through their numerous previous experiences in high altitude environments climbers gained a strong foundation of knowledge and drew upon it when they were faced with life threatening or challenging times.

*It was this accumulation of experience and the lessons gained from the failures, epics, and hardships that proved to be our most valuable asset and investment in tackling Mount Everest and coming back alive. (Climber 2)*

*I think it is important to learn from past climbing experiences and use what you have learned on Everest. Learn what works for you and what doesn't. For example one of the main things is drinking a lot. When you don't drink you become dehydrated and it affects your performance and your ability to acclimatize. So you learn little tricks to help you out and be more efficient up there. Like right when you get into a camp you start boiling snow and start drinking instead of waiting till later when you don't feel like getting out of your tent. You learn how to stay warmer, learn what systems for your feet work, so it gets easier and as a result your mental state improves. (Climber 9)*

*...you are drawing on past experiences. You may feel overwhelmed by your senses at the time but if you can go back to a place when you were younger, where you had a bad experience or several bad experiences and draw strengths from the fact that you are here now and those experiences didn't stop your life from going on. You will get through it. And that comes with those experiences from the past where you were able to get through things. (Climber 1)*

## Belief in Your Capacity

Some climbers spoke about the importance of believing in themselves and their capacity to complete their mission and return safely. This was a key factor in their success on the mountain. Their belief and confidence on the mountain was strengthened by drawing on real-world evidence that demonstrated their capacity to perform well under harsh conditions. This included revisiting past successes and lessons learned from previous set-backs. Finding reasons to believe in themselves helped these climbers to stay positive and persistent when faced with obstacles on the mountain.

*I believed in my ability to make it to the top from day one, from the moment I made this decision three years ago. It was actually a dream of mine for 10 years. When I climbed and summated Mount Aconcagua, somehow I just knew I could climb Everest. I never told anyone that I knew I could climb it. I didn't want to sound arrogant, but inside me, I seemed to know it. But then came obstacles, and so I had to decide how much I believed in my dream. Often I thought that it was not going to happen, you have run into a brick wall here, and a brick wall there. But I kept pushing on and I didn't give up on my dream. Sometimes you just need that belief in yourself to keep you going and to get through the obstacles. For example, at the Hilary Step I realized a goal of mine and that gave me the confidence to go after my next objective. One advantage I have is the belief in myself. (Climber 10)*

*I failed on Everest four times before reaching the summit on my fifth attempt. What made the fifth attempt different was that I really had the confidence that I could do it. I trained a whole lot harder and as a result I felt stronger physically.*

*I think that was the major difference concerning my mental state. (Climber 7)*

*It is important to train physically hard because that helps with your confidence on the mountain. In turn your confidence reflects what is taking place as you are climbing. I think that it comes down to experience to be honest with you. Experience breeds confidence. I often thought back to past climbing expeditions where we succeeded and used those memories to feel strong and sure of my abilities. (Climber 2)*

## Team Support

Working together and supporting teammates on the mountain was mentioned by some of the climbers as being an important component for reaching the summit. Some climbers overcame obstacles on the path to the summit with the encouragement and strength of their teammates. For these climbers, supporting one another and believing in one another as climbers was an important element of their success on the mountain.

*It is not always about being positive because I remember the day I was going for the summit, there was one guy on our expedition that I did not really like. He wouldn't be someone I would select as my climbing partner. When I wanted to go down when I thought there was no hope of going on however, he was the guy who said hey wait a minute, we have come this far. I am not turning around now when I know that I can still go on. And he was the guy who drove us out of our moments when we began getting comfortable. It is not always about being nice to one another, it is about challenging one another and motivating. (Climber 9)*

## The Descent

Climbing Mount Everest is not over until the climbers have returned from the summit of the mountain to base camp. Descending the mountain (to base camp) usually takes up to two days. Climbers will attempt to descend as far down the mountain as possible, however they normally rest at camp four or camp three before leaving the next day for base camp. It is clearly evident that mental strategies are not only employed as climbers ascend the mountain but they are also utilized on the descent.

## Focusing

Focusing is one of two critical mental strategies required for the successful descent from the summit of Mount Everest. Most of these climbers said that because they were so tired and worn out after reaching the summit, they had to really focus what remained of their energies on the dangerous, step-by-step task of the descent. Some climbers felt that focusing is even more important on the descent than on the ascent.

*It is even more important to focus during the descent because your body is not responding the way it should. You are so tired and depleted from the climb that staying focused on every step in front of you is crucial. Otherwise things like clipping a crampon can occur. (Climber1)*

*The descent is historically where climbers make mistakes and the post summit adrenaline is gone. I am always very focused in the mountains, but during the descent my focus is at its peak. When guiding it's looking out for the clients, checking and re-checking anchors, fixed lines, watching weather, other climbers etc. Until we exit the icefall and all the members, both climbers and Sherpas are*

*safe, my guard and focus remains heightened. It's not that I lose the joy after having reached the summit, but it is like bitter sweet until we are all safe. Respect for Everest is key to living and having the opportunity to return and celebrate. (Climber 8)*

## Short Term Goal-Setting

The second important mental strategy that climbers mentioned as being critically important on the descent was setting short-term goals as they descended the mountain. Setting small, realistic, achievable goals helped the climbers stay focused and committed to the successful descent experience.

*Setting short-term goals is really important when coming down the mountain. The goals I set were realistic. Because you are so tired and worn out on the descent, it is crucial that you set these small goals so you don't become overwhelmed by the experience. When you are climbing you always have to keep in mind that the summit is only part of the climb. In my opinion a climb is only successful once you have reached base camp from the summit. You also need to monitor your reserves because climbing from the summit to base camp is long. (Climber 3)*

## Impact Climbing Everest had on Participants Lives

Climbers were asked whether climbing Mount Everest had influenced their lives in any meaningful way, and if yes, in what way. Seven of the 10 climbers felt that this experience had a profoundly positive impact on their lives. Most gained confidence in their ability to take on new challenges.

*The first time I climbed Everest it absolutely changed my life. It opened doors*

*for me. And it was almost like, this will sound really corny but I want to tell you anyways. It was almost like I had a big energy shift on Everest. When I came down from the mountain I approached the world in a different way. And maybe it was because I had achieved what was a big dream for me. It just seemed like it opened new doors and my life changed now that I have done it a second time. I think that my life is changing even more in some ways and that has never happened with any other mountain. I will tell you right now that it changed my life tremendously. (Climber 4)*

*Sometimes you just need the belief in yourself to get through the many obstacles. I realized that they didn't stop me, it was questionable at times but somehow it worked and I made it through so many obstacles. And, that has given me the self-confidence to go after other objectives. Next year is a triathlon; I am going to do the qualifier for the Iron man in Hawaii. That was a goal I made 10 years ago. After Everest I pulled out my goal sheet and I looked and said what else do I want to do. So, Everest gave me the confidence to say even though I don't know the end result and I don't know what obstacles are in front of me, I will go and try because in the end you realize it is not the goal, it is the road you took, the traveling, the experience, the obstacles, and how you overcame them and everything you saw along the way. The entire two years planning and climbing on the mountain were amazing. (Climber 10)*

*It changed my whole life. For one my career changed. I became a motivational speaker even though I hated it, I was terrified of it but I wanted to conquer this fear more than give into it. I tell my story*

*to organizations and corporations about 30 times a year. I speak for an hour. My story parallels their own aspirations and for them it is a refreshing context. I also learned that by doing well in one arena, I have the confidence to tackle new challenges; challenges that are outside of my expertise which have lead to further diversification, liberation, satisfaction, and balance in my life. (Climber 9)*

## **Recommendations for Others**

### **Climbing Mount Everest**

These successful climbers were asked if they had any advice for other climbers who hope to climb Mount Everest. They recommended that anyone who wants to succeed on Mount Everest should gain lots of high altitude climbing experience, train hard physically, mentally and emotionally, and thoroughly preparing for the climb.

*I would tell someone who wanted to succeed on Everest to gain climbing experience, and to train very hard emotionally, mentally, and physically. Anyone under stress and extreme pressure who performs in a high-risk environment has to trust the fact that they have trained everything that is under their control. I would also suggest that climbers go under a series of extreme challenges so you can practice relying on your training to help you. When you go numb mentally which is often the case on Everest you can then rely on your past experience to get you through. (Climber 1)*

*Train, train and train. By training I mean go and climb as many high altitude peaks as possible. Only by being in the mountains can you learn tricks to help you. It is important to be wise on the mountain. Wisdom comes with actual experience. For example, learning*

*weather patterns so you know when and when not to climb. (Climber 6)*

*I would tell someone who wanted to climb Everest to train extremely hard and get lots of experience. I know that is what helped me the most. Spend a lot of time in the mountains. For example, learning rope skills. Go to another 8000m peak first, before going to Everest and that way you know how you are going to do on supplemental oxygen. I think a lot of people go to Everest with not enough experience. And Everest is very expensive. I would say take your time. Take a very focused path. Train hard, and learn your skills. You have to know how to jumar before you go up the Khumbu icefall. Don't try and learn it there. I saw one guy on our team who felt so sure of his skills and then it came to a point where we were doing a lot of repelling and a lot of jumaring and he didn't know how to do it. You can not be learning that stuff on Everest. Mount McKinley is actually a great training peak. It is as cold as you can only imagine up there. Then go to Aconcagua. It is not as cold but it is higher so you will gain experience in high altitude. Take a very gradual path. Those who take their time have no problem on Everest. Everest has a very sharp tail and it is a big mountain. You can get into a very bad situation very quickly. When things go wrong they go very wrong, and lots of people underestimate it. I trained so hard, and I was so happy that I was so fit because when summit day came it was not a problem. It made it a nice experience. It is important to enjoy the process. If you can go as a woman and be really strong physically and technically then you are a step ahead because everyone expects you to be the weakest link. (Climber 5)*

## **Discussion and Reflections**

Mountain climbers have emphasized the importance of mental strategies and detailed preparation in their own diaries, journals and personal reports. This was the first study focused on doing an in-depth exploration of the mental strategies used to perform successfully in the high-risk sport of high altitude climbing.

It is clear that climbing Mount Everest is an extraordinary physical, mental, and emotional test. Climbers must cope with constant danger, potential death, sleep deprivation, extreme cold, fatigue, avalanches, and various other potential setbacks for over a two-month period. It was fascinating to learn about how these Mount Everest climbers successfully applied various mental strategies in such extreme circumstances.

As a result of talking at length with each climber, it became very clear that success on Mount Everest is very much about having the proper mindset and focus. It was essential that climbers develop strong mental skills and apply them during training and while climbing the mountain. Being physically and technically strong, and being prepared logistically were also critical aspects of a successful summit. However, most of the climbers emphasized that what separated them from the many other climbers who did not succeed on Everest was their mental strength and their ability to apply mental strategies during hardship.

Some of the mental strategies used by the elite climbers in this study are similar to the mental strategies used by top athletes in various other sports. For example, in preparation for climbing Mount Everest, these climbers used positive imagery, engaged in detailed planning, and developed their mental strength during training and when climbing other mountains, to ensure success. Orlick and Partington's (1988) extensive

study on mental links to excellence found that successful Olympians also used positive imagery, engaged in detailed pre-competition planning, and developed their mental skills during training and lead-up performances to prepare themselves to perform to their capacity at the Olympic event.

Developing mental strength and skills for focusing through adversity is important for success in many pursuits. However it is an essential preparation strategy in successful high altitude climbing. The consequences of error, or losing focus even temporarily, can result in total mission failure or death. Successful high altitude climbers probably work on strengthening their mind-set, focus and resolve in training because they know they will be faced life threatening obstacles on the mountain. Experienced climbers know that mental toughness and skills for focusing through adversity and discomfort will be required to succeed and survive. When you have to endure a tremendous amount of discomfort for a long period of time, focusing on the right things can become a great asset.

The results in the ascent phase of climbing Mount Everest provide support for Orlick's (1996) seven critical components of personal excellence. Orlick's Wheel of Excellence represents a conceptual framework for the pursuit of excellence based on the results of in-depth interviews with hundreds of world-class athletes (Orlick & Lee-Gartner, 1995; Orlick & Partington, 1988), as well as ongoing work with individuals engaged in other high performance pursuits (Orlick, 2000). The seven elements of excellence in the model include commitment, belief, positive imagery, mental readiness, full focus, distraction control, and on-going learning. As the Mount Everest climbers shared their journey of how they successfully negotiated the challenges of the mountain, without prompting they spoke of the importance of

using all of the elements from the Wheel of Excellence to help them overcome obstacles on the path to the summit. By acting on these mental perspectives and strategies, the high altitude climbers to reach the summit and return safely to base camp.

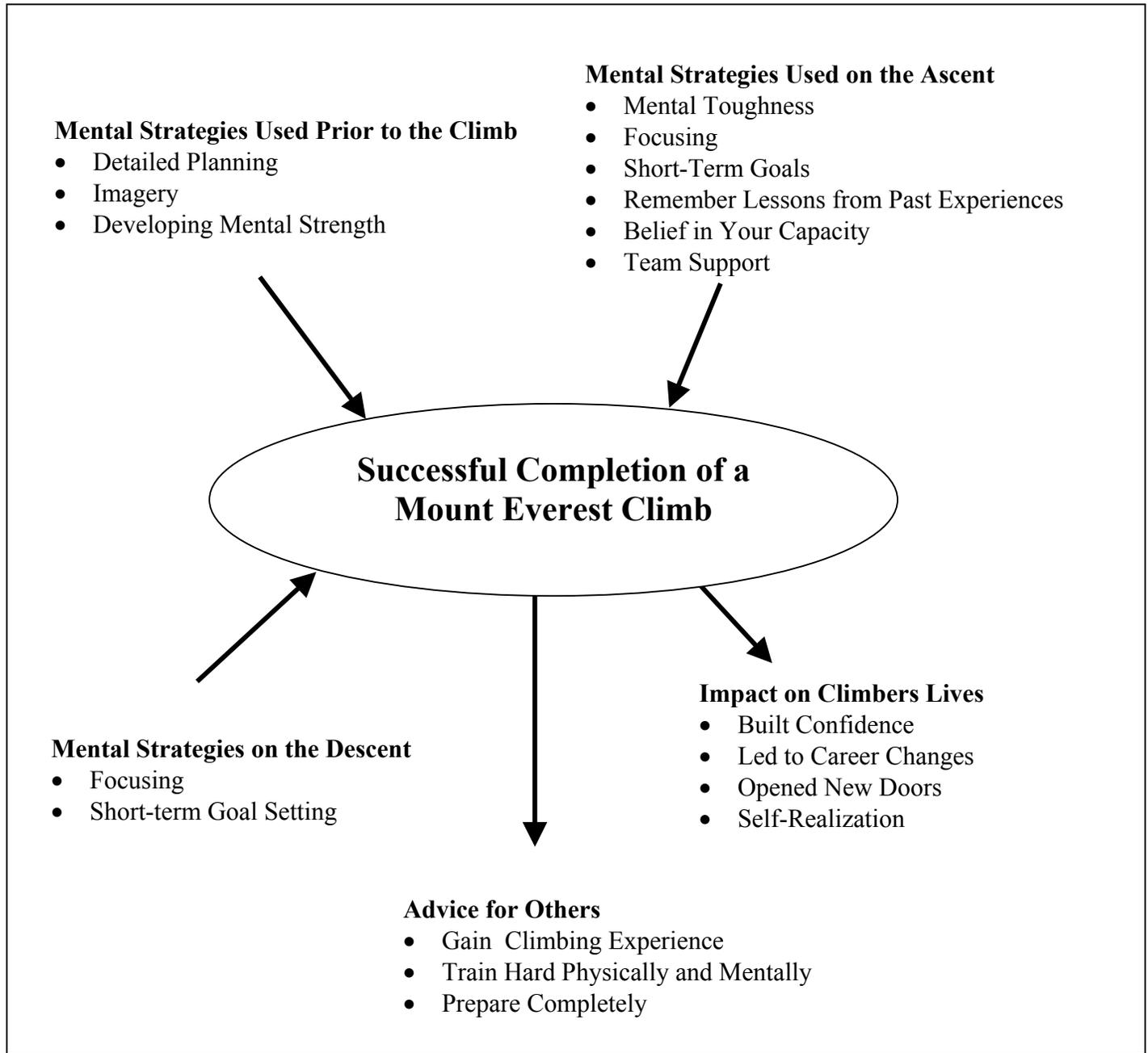
These climbers also spoke about a specific focusing strategy they used during the ascent, which included connecting with their bodies and redefining pain. A similar strategy has previously been reported to be related to enhanced performance in long distance running (Patrick & Hrycaiko, 1998; Schomer, 1986; Silva & Applebaum, 1989; Tammen, 1996). Many of the successful Mount Everest climbers in this study were able to read their bodies and adjust their focus to succeed with the immense effort involved in reaching the summit.

These Mount Everest climbers also reported using some mental strategies previously described by astronauts and surgeons engaged in high risk missions. For example, Orlick (1999) interviewed an astronaut who was a former fighter pilot, test pilot and the first Canadian to fly as a mission specialist, to pilot a docking with the space station, and to operate the Canadarm in space. The purpose of this interview was to explore the mental strategies used by this astronaut to excel in this highly demanding pursuit. The results revealed that detailed preparation, focus, imagery, and on-going learning were key strategies for success. An example of preparing fully for space flight included figuring out what it is you are trying to do and having a clear picture of that, followed by developing a clear picture of what you can do for all the possible things that can go wrong (Orlick, 1999). Similarly, high altitude climbers spoke of the need to develop a plan ahead of time to be fully prepared to successfully overcome potential setbacks on the mountain. In a highly dangerous and

demanding environment like climbing Mount Everest there is little time to stop and reflect in a crisis situation. Climbers and astronauts need to be prepared to react immediately to overcome potentially life threatening obstacles.

In another revealing interview conducted by Orlick (2001), one of the world's leading

cardio-thoracic surgeons was asked about the mental strategies he used to perform and deal effectively with the element of uncertainty in the highly demanding domain of high risk, life threatening surgery. The mental strategies he spoke about as enhancing the probability of success included preparation, optimism, full focus on the step



in front of you, belief in yourself and others, and teamwork. The performance requirements of flying a space shuttle, performing high risk surgery, and climbing Mount Everest are very different. However, the similarities of the mind-set and focus required to be successful are clearly evident. Achieving a difficult goal under conditions of extreme risk and stress, requires a special kind of mind set and focus.

Given that many of these Everest climbers felt that success on Everest is 70% mental, it is important that we continue to learn more about what it takes mentally to reach different kinds of “Mount Everest summits” and return safely. Much has been learned from these high altitude climbers that could help other climbers, as well as performers engaged in other disciplines in their pursuit of excellence. It makes sense that to prepare for a challenge like this, one should prepare fully, train hard both mentally and physically, and gain the required experience. Because of the fatigue and discomfort associated with high altitude, climbers need to train as much as possible in the natural environment so that their actions become instinctual when they are on Everest.

The more familiar and natural we are with ourselves and within our specific performance environment, the better the chances of success.

We leave you with the following quotes which sum up the Everest experience reflected by some of the special people we had the pleasure of interviewing and learning from.

*High altitude mountaineering is a game of endurance. What happens is that you begin very strong and focused but as we climb higher people lose weight, get sick, and they tend to get tired and don't*

*sleep as well. A whole new host of challenges present themselves and if you start out with 8 people on your expedition there are always people who drop out. It is a game of attrition. I try and stay healthy, get a lot of sleep and I prepare myself mentally. I know that summit day is going to be an 18 hour push so I try and have as much tenacity as possible to last as long as possible.*

*It is a matter of continuing to climb no matter how uninspired you feel, when there is nothing left to push you physically, you rely on your psychological strength and abilities.*

*You have to be driven, summit driven. You have to want it very badly. At some point you think what am I doing this for. Is it something that I really want to risk my life for. So all those questions you want to answer early on in the journey so you don't spend a lot of time trying to work them out on the mountain. I am a pretty happy guy. I have a great life, a good job. I love my wife and family and felt I was risking a lot for the climb. I questioned why I was there. Many people back home also wondered why I wanted to climb. It was important for me to answer these questions ahead of time and stay committed to my dream.*

*Climbing for me is a highly personal spiritual thing. When I go to the mountains, it is like practicing my religion. The beauty of what I see is really important to me and really effects me. I think that we are all looking for different things when we go to the summit of a mountain and for me it is a very personal feeling. The experience is more important than the physical achievement.*

## References

- Bahrke, S. M., & Shukitt-Hale, B. (1993). Effects of altitude on mood, behaviour and cognitive functioning. *Sports Medicine, 16*, 97-125.
- Breivik, G. (1996). Personality, sensation seeking and risk taking among everest climbers. *International Journal of Sport Psychology, 27*, 308-320.
- Cavaletti, R., & Tredici, G. (1992). Effects of exposure to low oxygen pressure on the central nervous system. *Sports Medicine, 13 (1)*, 1-7.
- Creswell, J. W. (1994). *Research Design: Qualitative & Quantitative Approaches*. California, Sage Publications, Inc.
- Egan, S., & Stelmack, R. M. (2001). A personality profile of mount everest climbers. *Unpublished document*. University of Ottawa, Ottawa, Ontario, Canada.
- Emerson, R. (1966). Mount everest: A case study of communication feedback and sustained group striving. *Sociometry, 14*, 213-227.
- Kerr, J. H. (1991). Arousal seeking in risk sport participants. *Personality and Individual Differences, 12(6)*, 613-616.
- Lyng, S.G. (1990). Edgework: A social psychological analysis of voluntary risk taking. *American Journal of Sociology, 95*, 851-886.
- Mahoney, J. M., Gabriel, J. T., & Perkins, S. T. (1987). Psychological skills and exceptional athletic performance. *The Sport Psychologist, 1*, 181-199.
- Maxwell, J. A. (1996). *Qualitative research design: An interactive approach*. Thousand Oaks: Sage Publications.
- Orlick, T. (2000). *In pursuit of excellence: How to win in sport and life through mental training* (3rd ed.). Champaign, IL: Human Kinetics.
- Orlick, T. (1996). The Wheel of Excellence. *Journal of Performance Education, 1*, 3-18. (available free on-line at [www.zoneofexcellence.com](http://www.zoneofexcellence.com))
- Orlick, T. (1999). Profiles of excellence: Interview with Chris Hadfield - Astronaut. *Journal of Excellence, 2*, 84-91.
- Orlick, T. (2001). Insights on Excellence from an elite cardio-thoracic surgeon. *Journal of Excellence, 5*, 117-125.
- Orlick, T., & Lee-Gartner, K. (1995). Winning the Olympic downhill. *Journal of Performance Education, 1*, 48-56.
- Orlick, T., & Partington, J. (1988). Mental links to excellence. *The Sport Psychologist, 2*, 105-130.
- Patrick, D. T., & Hrycaiko, W. D. (1998). Effects of a mental training package on an endurance performance. *The Sport Psychologist, 12*, 283-299.
- Rubin, H. J., & Rubin, I. S. (1995). *Qualitative interviewing: The art of hearing data*. Thousand Oaks: Sage.

Ryn, Z. (1988). Psychopathology in mountaineering - mental disturbances under high-altitude stress. *International Journal of Sports Medicine*, 9, 163-169.

Schomer, H. (1986). Mental strategies and the perception of effort of marathon runners. *International Journal of Sport Psychology*, 17, 41-59.

Shoham, A., Rose, M. G., & Kahle, R. L. (2000). Practitioners of risky sports: a quantitative examination. *Journal of Business Research*, 47, 237-251.

Silva, M. J., & Appelbaum, I. M. (1989). Association-dissociation patterns of United States Olympic marathon trial contestants. *Cognitive Therapy and Research*, 13, 185-192.

Tammen, V. V. (1996). Elite middle and long distance runners associative/dissociative coping. *Journal of Applied Sport Psychology*, 8, 1-8.

Ungerleider, S., & Golding, M. J. (1991). Mental practice among Olympic athletes. *Perceptual and Motor Skills*, 72, 1007-1017.