GOOD TO GREAT IN ELITE ATHLETES: TOWARDS AN UNDERSTANDING OF WHY SOME ATHLETES MAKE THE LEAP AND OTHERS DO NOT

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ABSTRACT

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At the Olympic Games or World Championship level, most elite athletes have a shared goal of becoming the best in their discipline. Athletes who are able to consistently rise to the occasion, set world records, or medal at a major games may be viewed as super-elite (great) athletes. Inspired by the work of Jim Collins (2001) who explored good to great in companies, this study sought to understand how an athlete who has been good over an extended period of time makes the transition to become great. The purpose of this study was to explore: (a) What, if any, are the mental factors and psychosocial-emotional changes associated with athletes who are able to make the shift from good to great? and (b) Are there mental factors and psychosocial-emotional changes that distinguish good-to-great athletes from comparison athletes? Twelve Olympic track and field athletes (6 = good-to-great athletes, and 6 = direct-comparison athletes) representing five different countries were interviewed. The "direct comparison" athletes are athletes who had competed in at least two Olympic Games, but failed to medal at a major championship and were unable to achieve a performance score of 1,200 points on the IAAF Scoring Table of Athletics. The "good-to-great" athletes had competed in at least two Olympic Games, demonstrated a pattern of good performances over a minimum of 5 years, punctuated by a transition point after which they medaled on three separate occasions at a World Championship or Olympic Games and had a performance score greater than 1,200 points on the IAAF Scoring Table of Athletics, over a 5 year period. The results revealed five dimensions (performance enhancement skills and characteristics, support and resources, motivational issues and

orientation, skill mastery and quality of training, and accumulated training time) as influencing the initial shift from good to great in good-to-great athletes, of which three of these dimensions (accumulated training time, performance enhancement skills and characteristics, and motivation issues and orientation) were described as also contributing to sustaining this transition. Both groups of athletes reported implementing similar strategies; however, the direct comparison athletes were less successful in their use of strategies. Additionally, the results provide support for the mental toughness framework in good-to-great athletes.

DEDICATION

I dedicate my dissertation to anyone who has ever strived to achieve their own personal excellence, or to go from good to great. How great you truly are, because you dared to be courageous. You dared to be your best! Life is truly what we make it, and I believe we are each destined for great things if we so desire it and have the courage to go after it. Measure your success not by comparing your achievements to others, but by how close you approach your own potential. You may discover you'll surpass exceptional along the way.

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Isaac Newton once said, “If I have seen further than others, it is by standing upon the shoulders of giants.” I believe this quote best reflects my sentiments concerning my dissertation and doctoral journey. Without the team of support I’ve been so fortunate to have this would not have been possible.

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I am not sure many graduate students are given the opportunity to develop their own individuality and self-sufficiency to find answers to a question they've always wondered about. With the support and guidance I received from my team of giants, I was able to study what it was that first interested me to pursue a doctoral degree at Michigan State in the Department of Kinesiology. A true testament to my incredible team of giants I've been so fortunate to have entered my life and work with me. From the bottom of my heart, thank you!

Nicole Wendy Forrester

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CHAPTER ONE

Introduction

"Good is the enemy of great.

And that is one of the key reasons why we have so little that becomes great." (Collins, 2001, p.1).

It was once believed that running under 4 minutes in the mile was humanly impossible. However, on May 6, 1954, Roger Bannister became the first man to do so. Perhaps what is most amazing about this feat is that soon after he broke the presumed "barrier," several runners did the same. Now running under 4 minutes in the mile, has become the normative standard, in elite middle distance runners. Roger Bannister did not settle on his good performances, but dared to become *great!* He proved to the world that the impossible was possible, and became a gateway for greater performances in the mile. But, just how does an athlete become great?

Certainly genetics and physical attributes play an influential role in the development of elite athletes. Performance-associated genetic variants are thought to influence physical traits such as muscle fiber type, anatomical structure and size, energy metabolism, response to exercise and cardiovascular fitness (MacArthur & North, 2005; Summers, 1997). However, many researchers have argued that other factors, including psychosocial factors, may play a greater role in the achievement of superb performances (Lippi et al., 2008; Lucia, Gomez-Galego, Santiago, Gonzales-Friere, & Morate, 2010; Summers, 1997).

The psychology of the elite athlete has long been established to influence success and failure in the most finely physically tuned athlete (Hardy, Jones, & Gould, 1996; Orlick & Partington, 1988; Vealey, 1988). In fact, Klissouras and colleagues (2001) retrospectively

compared Olympians who were identical twin brothers that had competed in the 20km. While one brother was an Olympic gold medalist the other brother performed inferiorly. Physiological testing demonstrated no significant differences; however, a difference on the State-Trait Anger Expression Inventory, was found, suggesting personality traits may have played an important role in the greater performance among the twins.

Researchers have long been interested in understanding how elite athletes achieve great performances, as well as the facilitative and debilitative factors influencing high performance (Conroy and Elliot, 2004; Feltz, 1988; Gould, Dieffenbach, & Moffett, 2002; Gould, Jackson & Finch, 1993a; Gould, Weiss, & Weinberg, 1981; Mahoney, 1989; Vernacchia, McGuire, Reardon, & Templin, 2000.) Reviewing the numerous studies of elite athletes, Gould and Maynard (2009) have identified the various psychological attributes, cognitive and behavioral strategies, and personal dispositions that influence successful Olympic performance in various athletes, sports, and contexts (Table 1). However, there is still a need to understand more about the process. Specifically, what are the psychosocial processes that enable an athlete to become a great athlete?

Table 1
Psychological Factors Associated with Olympic Success

Psychological/emotional state or attribute	Cognitive and behavioral strategies	Personal disposition
Confidence/self-belief Concentration/attentional-focus Determination/motivation/commitment Optimal zone of emotions/arousal/anxiety Emotional control Automaticity Motivation-commitment Body awareness Pain management Self-awareness	Self-talk Goal orientations (task, ego) Goal-setting Competitive simulations Competitive plans/re-focusing plans/routines Distraction preparation strategies Mistake management plans Success management strategies Fun/enjoyment strategies Environmental control	Self-talk Optimism Goal orientations (task, ego) Adaptive perfectionism Competitiveness Sport intelligence Trait hope Locus of control Intrinsic/extrinsic motivation orientation

Note. From Psychological preparation for the Olympic Games by D. Gould and L. Maynard, 2009, *Journal of Sports Sciences*, p. 1396. Copyright 2009 by Routledge Taylor & Francis Group. Adapted with permission.

Background

The world stands in amazement, as it witnesses the development of a child prodigy, such as Tiger Woods or Usain Bolt, redefine excellence. Their achievements grossly supersede the feats of their competitors and historical noteworthy performances. In some instances, like Wayne Gretzky, they are simply anointed the Great One. However, these athletes have followed an upward trajectory. They have always been great.

Some have argued that athletes identified as talented are inclined to have resources and opportunities (i.e., great coaching, great facilities, and great support) afforded to them, to encourage their development; thereby, providing a cumulative advantage (Burton, VanHeest, Rallis, & Reis, 2008; Durand-Bush & Salmela, 2002). Merton (1968, 1988) described this as

the Matthew-effect, referencing the Gospel according to Matthew whereby more is given, to those who have achieved some greatness, while others who do not demonstrate greatness do not benefit.

Supporting this argument for a cumulative advantage, researchers have been able to show that a relative age effect exists in various sports (Barnsley & Thompson, 1988; Barnsley, Thompson & Barnsley, 1985; Barnsley, Thompson, & Legault, 1992; Dudink, 1994; Helsen, Starkes & Van Winckel, 2000), whereby, there is an over-representation of athletes born in the first quarter of the sport-year competing competitively at the elite level. Musch and Grondin (2001) posit the presence of competition, physical development, psychological factors, and experience contribute to the relative age effect. For example, hockey players born in the early months of the year are at a growth and maturation advantage, to their peers who are born in the later months of the years. These advantaged athletes, are more likely to be selected and promoted in hockey programs receiving access to better coaching, support, competition, and other resources placing them on the trajectory of becoming a professional hockey player.

Similarly, Côté and colleagues (2006) have been able to show the existence of a birth-place effect in North American athletes participating in baseball, ice hockey, basketball, and golf. Specifically, they looked at 2,240 male athletes who played in the National Hockey League (NHL), National Basketball Association (NBA), Major League Baseball (MLB), and Professional Golfers' Association and found that professional athletes significantly over-represented cities with populations between 50,000 and 100,000 across each sport. Cities which were over 500,000 were vastly under-represented, across each sport. They suggested that smaller cities provide (a) a better opportunity for talent development by providing physical and psychological safety; (b) appropriate structure; (c) supportive relationships; (d) opportunities to

belong; (e) positive social norms; (f) support for efficacy and mattering; (g) opportunities for skill building; and (h) integration of family, school, and community efforts. Additionally, a relative age effect was found in NHL and MLB players.

However, there are some athletes who are not afforded the benefits of the Matthew-effect, and are still able to ascend to greatness. Fans may view them as the underdog, and a symbolic "athletic hero" as they overcome the odds (Frazier & Snyder, 1991). Recently, the world witnessed the rise of the basketball phenomenon Jeremy Lin, who was an underdog by all accounts. Jeremy a "good" athlete – did not receive an athletic scholarship out of high school, and was not drafted out of college. He has since gone on to play in the NBA for the New York Nicks, and in February of 2012, led a winning streak, while joining the starting lineup. The term "Linsanity" emerged, a combination of his last name and the word insanity, to explain the sudden and unexpected ascension of this underdog. While one may understand the psychological factors associated with great performances, just how does an athlete who was not always great, become great? The book *Good to Great*, by Jim Collins, which explored companies that had made the shift from good to becoming great, has inspired my curiosity of this process in elite athletes.

Nature of the Problem

Regardless of the domain, the attainment of great performances conjures attention and an interest in understanding how it is achieved, especially when one improves from good to great. Without disregarding the influential role physical attributes may play in an athlete's achievement of excellence, this study is interested in the psychosocial elements. The work of various researchers in the field of sports psychology has provided insightful understandings of the psychosocial elements of elite athletes and the factors which promote successful performances

(Burton et al., 2008; Connaughton, Wadey, Hanton, & Jones, 2008; Feltz & Ewing, 1987; Gould, Greenleaf, Guinan, & Dieffenbach & McCann, 2001; Hardy et al., 1996; Lee, Shaw, & Chesterfield, 2009; Mahoney & Avener, 1977; Orlick & Partington, 1988). Likewise, maladaptive processes, and possible impediments of performance have equally been studied (Conroy & Elliot, 2004; Lemyre, Hall, & Roberts, 2007; Stoeber, Stoll, Pescheck, & Otto, 2008). Elite athletes have been compared to non-elite athletes, and elite athletes have also been compared to super-elite athletes (Gould, Eklund, & Jackson, 1993; Jones, Hanton, & Swain, 1994; Highlen & Bennett, 1979; Kreiner-Phillips & Orlick, 1993; Mahoney, 1989). But, if great athletes have always been great, can the same principles for achieving excellence be applied to athletes who have not always been great? Therefore, the topic of this study is to understand the mental factors and psychosocial processes that allow good (elite) athletes to become great (super-elite) athletes.

Conceptual Underpinnings for the Study

Collins and Porass (1994) initially explored the qualities of great companies, and how they were able to sustain this achievement. Their findings provided suggestions for other companies to follow to realize excellence. However, if a company has always been under the guidance of a great leader, can the same findings be applied to a company that has always only been good? As a follow-up, Collins (2001) explored whether it was possible for companies to make the leap from good-to-great, and if so, what distinguished them from companies that were unable to do the same.

Good-to-great companies were defined as those that had “fifteen-year cumulative stock returns at or below general stock market, punctuated by a transition point, then cumulative returns at least three times the market over the next fifteen years” (Collins, 2001, p. 6). These

companies were then compared to companies within the same industry, with similar opportunities and resources that did not make this leap, as well, as companies that were able to make a short term shift, but were unable to sustain it. He termed these companies the direct comparisons and unsustained comparisons, respectively. Collins and his research team (2001) were able to determine that some companies did in fact make the leap from good-to-great, and the companies that were able to make this leap held distinguishing characteristics to the comparison companies.

Specifically, Collins (2001) found that the culmination of disciplined people, disciplined thought, and disciplined action, distinguished good-to-great companies from their comparisons. First, disciplined people involved the leadership of a humble, yet driven individual, as well as, having the right people working in the right positions. Secondly, disciplined thought required the ability to confront the brutal facts of one's current position, while never losing faith that prevailing is possible. Disciplined thought can be best understood according to the Hedgehog Concept. The Hedgehog Concept is a deep understanding along three intersecting circles: (a) an understanding of what one can be the best at and what one cannot be the best at in the world; (b) a realization of what action will produce results; and (c) passion. Finally, disciplined actions infer a culture of discipline, whereby people view their actions as responsibilities. Collins (2001) found that companies that were able to make this shift from good-to-great did not embark on a revolutionizing change. Rather it was the continued, resilient effort, like pushing a heavy flywheel, gradually building momentum, until eventually breakthrough occurred.

While Collins' (2001) research approaches good-to-great from a business and organizational stand point, it is not known if the concepts can be explored and applied to the individual level or how they may be different at the individual level. However, Collins urges

other domains, including sport, to investigate the phenomenon of good-to-great. Studying this phenomenon in athletes may provide a better understanding to the processes involved in an athlete's shift to greatness. Certainly, the premise of Collins' research offers a worthwhile place to begin an exploration of good to great in sport.

The Olympic motto Citius, Altius, Fortius (Latin for Faster, Higher, Stronger) embodies the pursuit of excellence. It is a pursuit inherent to most elite athletes. At the highest competitive level in sport (e.g., Olympic Games or World Championship), elite athletes generally have a shared goal of being the best. The best may be measured by normative standards or by a personal performance result. Within this selective group of athletes, those who set records, medal or perform some incredible feat may be viewed as super-elite (great) athletes. Comparatively, athletes who fall short of these accomplishments may be viewed as simply elite (good) athletes. Indeed there will be many who are good, and few who are great. Considering the pursuit of excellence and taking from Collins' work, if an athlete has been good how does an athlete make the leap to become great? Is there even a difference between these athletes, or is it all luck?

As mentioned, Olympic Champions have been found to have various psychological attributes, cognitive and behavioral strategies, and personal dispositions. In a study comparing Olympic medalists to non-medalists, Gould, Eklund and Jackson (1992) examined the association between cognition and athletic performance in Olympic wrestlers. They found medalists reported having a competitive plan and appropriate tactical "focus" well-established in their minds and did not shift spontaneously from it during matches. Comparatively, non-medalists reported deviating spontaneously from their tactical focus and competitive plans in matches, and often these changes did not provide a successful result. They also found medalists

commented less about thinking during their all-time best match, than non-medalists, possibly reflecting a degree of acquired automaticity in medalists. These findings are supported by Orlick and Partington (1988) who found the success of Olympic medalists and World Champions were influenced by a commitment to excellence, quality training (including the use of daily goals, competition simulation and imagery), and mental preparation for competition. Comparatively, changing patterns that work, late team selection, and an inability to refocus upon encountering distractions were found to impede performances in non-medalists. Together these studies suggest a difference in psychological attributes, cognitive and behavioral strategies, and personal disposition seems to exist between elite and super-elite athletes.

In an extensive study exploring the psychological characteristics and development of Olympic Champions, Gould et al. (2002) found that development was a long-term process influenced by numerous individuals and institutions. Additionally, the discovery of mental toughness was noted as an important characteristic identified in the study, and encouraged future investigators to consider it as a variable. Mental toughness is a term commonly used, but not necessarily understood in applied sports psychology (Jones, Hanton, & Connaughton, 2002). Recently, Jones, Hanton, and Connaughton (2007) developed a framework of mental toughness with four distinct dimensions (attitude/mindset, training, competition, postcompetition). Gould et al. (2002) found that although participants in the study may not have been familiar with the framework of mental toughness, the common components of it or the term itself was often identified as characteristic of Olympic champions.

In exploring the quality of greatness in elite athletes, much like Collins' study, sustainability must be considered. This implies a great athlete is able to repeat his or her performance (e.g., medaling at a major championship, high scored performance result) over a

period of time. Kreiner-Phillips and Orlick (1993) explored the effects of success in champion athletes in the Olympic Games, World Cup, or World Championships. They compared athletes who were able to win and win again, with athletes who struggled to repeat their winning performance and found that success created greater demands. These greater demands led to inferior performances unless athletes learned to control the expectations of others that they perceived and the external demands. They suggested that the felt pressure of expectations was the result of a shift in goal orientation, whereby athletes had become outcome goal oriented as opposed to process goal oriented. Hardy et al. (1996) posits elite athletes engage in multiple-goal orientations in different situations to promote motivation and success. They encourage future research to explore how and when the various goal strategies are employed, including the use of process-oriented goals used to enhance the quality of training while reducing goal-related stress.

Kreiner-Phillips and Orlick (1993) also concluded that a winning focus was the result of having a strong belief in one's ability to win and a total task focus. The strong belief in one's ability to win is synonymous with self-efficacy - the belief that one has in one's ability to meet a challenge (Bandura, 1977). Self-efficacy has generally been shown to positively correlate to performance and is understood to be higher in elite athletes compared to non-elite athletes (Hardy et al., 1996). Manipulating self-efficacy in students, Locke and colleagues (1984) found high self-efficacy to positively affect goal level, task performance, and goal commitment. Similarly, Martin (2006) found more successful runners had a high self-efficacy and set difficult time goals as the importance of a race and competition increased, compared to less successful runners. This supports the belief that athletes who report high levels of self-efficacy will set higher goals, and remain committed to them once selected. Additionally, self-efficacy has been

suggested to bias causal attribution, whereby individuals with high self-efficacy will attribute failure to lack of effort and individuals with low self-efficacy will attribute it to a lack of ability (Bandura, 1986, 1989). Therefore, it is assumed that in the face of setbacks elite athletes will apply greater effort and persistence and attribute failures to lack of effort or strategy instead of ability (Hardy et al., 1996). However, Hardy and colleagues (1996) suggest there is a need for future studies to evaluate this assumption, comparing non-elite athletes to elite athletes.

Whatever the pathway to greatness may be, it is understood that these athletes hold a combination of ability and psychological prowess. Intuitively, one may infer a good athlete need only improve either his or her ability or psychological skills to realize greatness. But, for athletes who have become accustomed to their good performances, despite pursuing greatness, is this transition possible, and if so how? Thus far, no study has considered this dilemma.

Purpose of Study

There are perhaps many good athletes, few great athletes and even fewer athletes who make the leap from good-to-great. The repercussions of understanding the pathway of athletes who are able to make this leap may prove to be fruitful for other good athletes who are aspiring greatness. Researchers have been able to identify the characteristics of elite athletes and the conditions in which they occur. Furthermore, researchers have been able to contrast and compare successful athletes to less successful athletes. However, if an athlete has always been great, can the same principles be applied to good athletes to enable their performances? The purpose of this study was to explore the mental factors and psychosocial elements of good-to-great athletes, and to understand what distinguishes them from athletes who fail to make this shift.

Research Questions

To better understand how athletes make the transition from good-to-great this study sought to answer two questions. First, for athletes who were able to make the shift from good-to-great, what mental factors and psychosocial-emotional changes, if any, do they associate with this transition? Secondly, are there mental factors and psychosocial-emotional changes that distinguish good-to-great athletes from comparison athletes?

Assumptions, Limitations, and Delimitations

This study assumes that participants have acquired their performances legally without the assistance of a banned substance. It is also assumed that participants made a sincere effort with their involvement in the study. All participants in the study were volunteers who were able to withdraw from the study at any time. Furthermore, the participants who completed the study may not be representative of the population. The participants in the study competed on the senior international level for a minimum of 10 years and were drawn from the sport of track and field. Thus, these findings may not generalize to athletes in other sports.

Definitions

Terms and operational definitions which apply to this study are listed below.

Direct comparison athlete – an internationally competitive athlete that has competed in at least one Olympic Games, but has not achieved a performance of 1,200 points on the International Association of Athletics Federation (IAAF) Scoring Tables of Athletics, and has not medaled at a major championship.

Good performance – a top three performance average that does not exceed 1,200 points on the IAAF Scoring Tables for Athletics for at least 3 years prior to the transition point.

Good-to-great athletes - demonstrate a pattern of good performances over a minimum of 3 years, punctuated by a transition point after which it shifts to great performances, which lasts for at least 3 years over a 5 year period and includes the achievement of at least 3 medals at a major championship.

Great performance – a top three performance average in a given year of 1,200 points or greater on the IAAF Scoring Tables for Athletics, while also medaling at a major championship after the transition point in a single discipline.

Major championship – includes the Olympic Games, the IAAF Indoor World Championship and the IAAF Outdoor World Championship.

Mental toughness - a psychological edge allowing performers to cope better than their competitors and meet their athletic demands (Jones et al., 2002).

Sport confidence - the belief athletes have in their ability to be successful in their sport (Feltz, 1988).

Transition point - a marked punctuated shift in performance from good to great.

CHAPTER TWO

Literature Review

The pursuit of excellence in sports involves athletes striving to produce swifter, higher, and stronger performances. They engage in intense physical training, demonstrate mastery, competitiveness, and a relentless spirit. The performance of great athletes like Jackie Joyner-Kersee, Michael Jordan or Roger Federer conjures amazement and wonder by spectators. What is it about these athletes that allow them to demonstrate superb abilities? Often, these phenomenal performances of athletes are reasoned to be the result of an innate physical ability. However, even with the most gifted athlete, success is dependent upon paramount psychological characteristics (Côte, 1999; Csikszentmihalyi, Rathunde, Whalen & Wong, 1993; Gould, Dieffenbach, & Moffet, 2002; MacNamera, Button, Collins, 2010a; MacNamera, Button, Collins, 2010b).

While researchers in sports psychology have focused attention on the characteristics of great athletes and how to improve performance, no research yet has considered how an elite athlete makes the leap from being good to great. The premise of this study is rooted in Collins' (2001) exploration of good-to-great companies in business. The pursuit of excellence is a common theme in business and in sports, as are various constructs and theories (e.g., self-efficacy, motivation, competency, and goals). However, the individual nature of athletes and the component of competition inherently associated with sports, can lead to differing results between sports and organizations (Filby, Maynard, & Graydon, 1999; Hall, Weinberg & Jackson, 1987; Weinberg, Bruya, Jackson, & Garland, 1987). While it is unsure whether Collins' (2001) results cannot be applied unilaterally to the concept of sport, his exploratory approach to understanding the phenomenon of good to great can be applied to sports.

This chapter considers Collins' (2001) exploration of good-to-great leaps made by companies and its relevant application to the domain of athletics. Specifically, this chapter begins by reviewing Collins' (2001) study of good to great in business. Second, the model for psychological peak performance in elite athletes is considered as a basis of evaluating relevant literature; followed by a review of the development of elite athletes. Next, common germane psychological constructs, cognitive strategies, and evolving theories of achievement motivation are summarized. Finally, the psychological characteristics of elite athletes and research gaps are discussed. The objective of this chapter is to provide an understanding of previous elite athlete research in the field of sports psychology and a basis for exploring the phenomenon of good to great in this population.

Good to Great in Business

The inspiration for this study is rooted in a similar study conducted by Jim Collins (2001) and his research team with businesses. Collins (2001) set out to discover whether a good company could become great, and if so how? As an exploration study, he began his quest by finding companies that demonstrated a good-to-great results pattern. Specifically, companies were studied that showed a period of good performances, which were interrupted by a transition point, resulting in an upward trajectory of great performances. Good companies were defined as having "a cumulative total stock return no better than 1.25 times the general market for the fifteen years prior to the point of transition," while, great companies were defined as having a cumulative total stock return of at least three times the general market for 15 years or more after the point of transition (Collins, 2001, p. 219). The period of 15 years prior and after the transition point was assigned to transcend possible inconsistent or auspicious performances. Likewise, the defined standard of great (three times the general market) was based upon the

performance of companies commonly acknowledged as great. Over a period of 40 years, Collins (2001) found 11 stand-alone companies that were in operation for at least 25 years prior to the transition point, and demonstrated a good-to-great shift relative to their industry, as well as, the market.

After determining the good-to-great companies, Collins (2001) and his research team sought to evaluate commonality in the good-to-great companies that distinguished them from the comparison companies. Eleven direct comparison and six unsustained comparisons were selected as comparison companies, and contrasted with good-to-great companies. Direct comparison companies included those that were in the same industry as the good-to-great companies, with a comparable business, size, and age. These companies had the same resources and opportunities afforded to them as the good-to-great companies at the time of transition, yet failed to make that shift. Conversely, the unsustained comparison companies, were in fact able to make a shift from good to great, however, they were unable to maintain this course.

Analysis included coding themes based upon the collection of all publications on the 28 companies. Additionally, interviews of executives who were in office during transition for the good-to-great companies were conducted. Interviews were transcribed and added to the content analysis. Furthermore, systematic comparisons and quantification of key variables between good-to-great companies and the comparison companies were performed. Collins and his team of researchers determined that disciplined people, disciplined thought, and disciplined action distinguished good-to-great companies from their comparisons.

Disciplined people included a combination of ‘Level 5’ leadership and having the appropriate people correctly placed within a company. Level 5 leadership refers to a hierarchy of aptitude embodied, with Level 5 being the highest. More specifically, a Level 5 leader

exemplifies high capabilities (Level 1), is a contributing team member (Level 2), competent manager (Level 3), effective leader (Level 4), and builds lasting greatness through a seemingly contradictory balance of humility and determination (Level 5). Interestingly, while motivation is identified as a necessary component, disciplined people inherently are motivated and do not need to be externally motivated.

Disciplined thought involved a thorough truthful understanding of one's situation and development of a basic principle that coalesces and guides everything. To understand one's current reality, a company needed to confront the brutal facts, free from biases, while, not losing faith in the ability to eventually succeed. From this, a 'Hedgehog Concept' evolves, which is a simple, coherent concept guiding actions. The Hedgehog Concept is based upon three intersecting circles: (a) what a company (or individual) can be the best in the world at; (b) what best drives their resource engine; and (c) what they are deeply passionate about (Collins, 2001). Disciplined thought is an enabler of performance, simplifying and narrowing focus, to guide efforts towards the attainment of a desired performance.

Finally, disciplined action is essentially the commitment to executing efforts on the basis of the Hedgehog Concept. Collins (2001) found good-to-great companies did not perform a defining monumental action to bring about the transition to greatness. Rather, through the commitment to the Hedgehog Concept, good-to-great companies gradually experienced success. Past success strengthens the commitment in the Hedgehog Concept, and success continues to grow, eventually gaining momentum. This relentless commitment provides the appearance of a sudden trajectory of success, when in fact it was not any single great action.

Collins (2001) offers the analogy of the flywheel to describe this effect. A large flywheel does not begin movement by a single push, but rather the continued pushing results in a slow

turn. With each turn, momentum gradually builds until a breakthrough point occurs; similar to the disciplined action of a good-to-great company. Alternatively, comparison companies were found to follow a 'doom loop', whereby, rather than committing to a Hedgehog Concept, they employed major actions (e.g., restructuring, acquisition, or changing directions), in hopes that this would provide the success desired. In this approach, momentum is not gained. Disappointing results feed the pursuit of a new direction, and continued disappointing results.

In summary, Collins' (2001) exploratory study suggests good companies can become great companies. The characteristics of good-to-great companies revealed shared commonalities, as well as a distinction from comparison companies. Collins (2001) has proposed that other domains, such as sport, should likewise explore the concept of good-to-great. While these characteristics of good-to-great companies cannot be assumed to be the same in good-to-great athletes, the concept of Collins' study can certainly be applied to begin an understanding of this phenomenon in elite athletes.

Good to Great in Athletics: A Model of Psychological Preparation for Peak Performance

An elite athlete represents the highest level of competition in sport. A culmination of physicality, ability, and mental prowess are commonly understood to be embodied by these athletes. Given the various types of sports and their needs, individual differences, and the numerous psychosocial factors, the study of elite athletes is quite complex. Considering the various psychological components involved in peak performance, Hardy et al. (1996) provided a most thorough review of research and theories in the field of sport psychology. Taken together they propose a unifying model of psychological preparation for peak performance. Specifically, they suggest peak performance involves five major components: (a) fundamental foundation

attributions, (b) psychological skills and strategies, (c) coping strategies, (d) task-specific ideal performance state, and (e) environment.

Fundamental foundation attributions include the personality characteristics, motivational orientations, and philosophical beliefs that an athlete may have. This forms the base of the pyramid, directly influencing the athlete. These attributions are inherent to the athlete and are difficult to alter for adult competitors. However, they are influenced by other components of the model.

The psychological skills and strategies make up the left side of the pyramid, referring to factors athletes can utilize to create the ideal situation for peak performance. This component is modifiable, but requires athletes to identify optimal psychological skills and strategies. Hardy et al. (1996) believe "athletes need to 'set the table' for success by psychologically readying themselves in certain identifiable ways that are uniquely customized to their sport context and personality." The other side of the pyramid attends to adversity coping, whereby athletes are empowered to use the appropriate coping strategy which will allow them to deal with the stress of high performance (e.g., Olympic Games or World Championships).

Task-specific ideal performance state is the fourth component of this model and is positioned at the top of the pyramid. Task specific ideal performance state is the understanding of conditions which provide the best results for a given athlete and has been sometimes referred to as flow (Csikzentmihalyi, 1975), zone of optimal functioning (Hanin & Stambulora, 2002), and recipe of emotions needed for best performances (Gould & Udry, 1994). Self-efficacy, arousal, and self-determination are examples of factors that may be involved in creating an ideal state.

The final component of the model is environment. The environment, which surrounds all of the other components, includes the physical, social, psychological, and organizational elements which can have a substantial impact on the psychological preparation of elite athletes. Factors such as a coach, social support, performance accomplishments, quality of training, verbal persuasion, vicarious experiences, and motivational climate are examples of environmental factors.

Although the Hardy et al. (1996) model is a general model that considers what factors one needs to be able to achieve a peak performance on a single occasion, one could assume that if athletes have all these characteristics they would be much more likely to be a top performer on a consistent basis. Moreover, while Hardy et al. (1996) do not believe this is the only model suited to conceptualize the psychosocial complexity of elite athletes; it is a valid model to consider in the exploration of good-to-great in elite athletes. Specifically, given that fundamental attributes are difficult to change in adult elite athletes, it is possible that a shift from good to great in elite athletes may be explained due to changes in psychological skills and strategies, coping strategies, task-specific ideal performance state, and/or environmental factors. This model provides a basis for evaluating the interaction of various factors in the achievement of great performances.

The Long Term Development of an Elite Athlete

In exploring the concept of "good" elite athletes becoming "great" it is important to first understand the development of an elite athlete. This development is a long-term process, whereby athletes learn to master skills essential to the advancement in their sport. A skill is defined as "a level of performance in any given task that can be acquired only through practice" (Yarrow, Brown, & Krakauer, 2009, p. 587). It is through practice one may become an expert,

exhibiting paramount domain-specific mastery of knowledge and skilled motor performance (Ericsson, Krampe, Tesch-Romer, 1993). Certainly, genetic physical attributes may predispose individuals to the achievement of elite athletic performances (MacArthur & North, 2005). However, practice and psychological skills also influence this progression. For example, athletes may differ in height, muscle mass, body fat, and muscle type, but, for performance to solely be based on physical elements it could be argued that practice and psychological skills would not influence performance (Ericsson et al., 1993). Considering the neural and cognitive processes, elite athletes have been found to demonstrate superior task-specific perceptions, anticipation, precision and decision making, dependent upon deliberate practice and inherent inter-individual differences (Ericsson et al., 1993; Yarrow et al., 2009).

Deliberate practice consists of effortful, high-quality, intentionally taught activities with a goal to improve performance. Ericsson et al. (1993) posit deliberate practice requires at least 10 years or 10, 000 hours of practice, as well as, the necessary resources (e.g., facilities, equipment, support and qualified coaches). Deliberate practice is not necessarily enjoyable, however, individuals will engage in deliberate practice because of their driven commitment to excellence (Ericsson et al., 1993). While there have been some studies which have challenged deliberate practice theory (Bullock, Gulbin, Martin, Ross, Holland, & Marino, 2009; Hodges & Starkes, 1996; Young & Salmela, 2010) many researchers support this theory, including the notion that deliberate practice can be accrued through various sports (Baker, 2003; Bullock et al., 2009; Henriksen, Stambulova, & Roessler, 2010; Hyllegard & Yamamoto, 2005). Ultimately, it is this accumulated quality repetition of a skill over time, which fosters the long-term development of mastery and an elite athlete.

Bloom (1985) fielded a comprehensive study with colleagues to understand the development of elite talent. Ranging from the areas of athletics, academics, arts, and music, 120 world-class individuals were interviewed. Bloom determined that the successful development across fields held shared qualities. Specifically, talent development involved three distinct sequential phases: early years, middle years, and late years. These stages also parallel and support Whitehead's (1929) learning development model, which include a romance phase, precision phase, and integration phase.

Bloom (1985) found during the early years, these individuals explored their activity and had fun, thereby, developing a love for the activity. Encouraged by teachers, coaches, and parents, individuals attained some level of success and were motivated to continue their involvement. As they progressed into the middle years, a coach was engaged to assist in the long-term and systematic development of technical skills. Additionally, preparation for international competition began, ranging between 4 to 6 years for athletes. During this phase the resources parents invested, including time and money, notably increased to provide optimal training and competition for their child. In the final stage, the late years, training plays an intricate role in the life of the individual. The time spent daily in quality training significantly increased and was reflected in their improved technical skills and performance.

Overall, Bloom (1985) determined the three stages occurred over a span of 15 to 20 years. The length of each phase was dependent upon the individual, whereby, changes in phases were distinguished by both dramatic and/or gradual shifts. Thus, it is suggested that progress should not be rushed or the individual will fail to gain a complete development of talent (i.e., the learning of a new advanced skill may be impaired). While parents were involved and provided

support, Bloom determined that the key to successful talent development of an individual was dependent upon commitment, without excessive expectations.

Similarly, in an in depth qualitative study, Côte (1999) evaluated the talent development process of four athletes before the age of 18 and the role of their family in their development. Between the ages of 6 and 18 years, he identified three phases of development: sampling years, specializing years, and investment years. During the sampling years (6 to 13 years of age) parents played an instrumental role in their children becoming interested in sport without focusing on intense training. Through the use of deliberate play, the focus was on fun and excitement. Additionally, the child's involvement was voluntary with immediate gratification experienced. During the specializing years (13 to 15 years of age), athletes began to focus on one or two sporting activities, often influenced by encouragement in positive experiences. Fun and excitement remained a central theme, while, sport-specific skill development also became important. Likewise, parents began to develop an interest in their child's sport, investing additional time and money into their child's athletic pursuit.

The investment years (15 to 18 years of age) were marked by the athlete's commitment to achieving athletic excellence. There was a significant increase in intense practice time, replacing the time previously assigned to play. Moreover, competition and skill development became the most salient elements during this period. Parents demonstrated an even greater interest in their child's sport, offering assistance and support to various setbacks (such as injury, loss or fatigue). While this study was limited to four athletes from middle class families, who developed to a national level, it did offer a focus of athlete development until the age of 18 years.

Attending to the span of an elite athlete's career, Durand-Bush and Salmela (2002) looked at the development and maintenance of expert athletic performances. Ten athletes who had won at

least two gold medals at the Olympic Games and/or World Championships were interviewed in a qualitative study. The authors determined that these athletes, progressed through the stages identified by Bloom (1985) and Côte (1999) with a final stage attending to maintenance. Specifically, athletes who achieved and maintained excellence, progressed through four different stages: sampling years, specializing years, investment years, and maintenance years.

Durand-Bush and Salmela (2002) found that during the sampling years, athletes experienced enjoyment, developed fundamental personal and physical attributes, while engaging in various activities. The specializing years involved an investment of time and effort into a few sports with an emphasis on competition and training. Progress in the investment years, included athletes narrowing their focus towards their eventual sport of choice. Specifically, during this stage athletes worked with specialists (e.g., weight trainers, nutritionists, and sport psychologists) to promote greater performances; exuded self-confidence, motivation, and competitiveness to train, resulting in enjoyment; and engaged in more intense structured quality training. Additionally, competition provided necessary performance feedback to assess the development of the athlete. The final stage, maintenance years, was similar to the investment years with a greater emphasis on technical and tactical training. Athletes became students of their sport and relied on family and their coaches for support. While these athletes progressed through the four stages (sampling years, specializing years, investment years and maintenance years), they did not all follow the exact same path to achieving and maintaining success. Thus, the road to excellence speaks to the individual needs of an athlete, involving different resources and strategies.

Comparatively, in a case study, Henriksen et al. (2010) evaluated the talent development environment of a successful Swedish track and field club on the national and international level. Collecting data from multiple perspectives (i.e., coaches, athletes and administrators) and

situations (i.e., competition and training), they found the development of elite track and field athletes was long-term. It involves a gradual progression from playful to intentionally structured training with a late specialization. Moreover, talent development environments should foster support, fun and models of other successful athletes.

In summary, the development of an elite athlete is long-term, influenced by physical attributes, practice, and psychological skills. The development of an athlete is influenced by his or her family, coaches, and training environment. Progression should not be rushed, but, rather speak to the individual needs of an athlete, and requires maintenance once achieved (Bloom, 1985; Burton, VanHest, Rallis, & Salmela, 2002; Gould et al., 2002; Henriksen et al., 2010; MacNamera et al., 2010a, 2010b).

Motivation Theories, Constructs, and Cognitive Strategies

Self-efficacy

The great tennis player Arthur Ashe once said, "One important key to success is self-confidence. An important key to self-confidence is preparation." In the long-term development of an elite athlete, specific self-confidence for performance is arguably one of the most influential factors mediating the achievement of striving in sport (Feltz, 1988, 1994). Social cognitive theory postulates that people function as active agents in their motivations and actions, as opposed to being reactive (Bandura 1997, 2001). Individuals are interacting with their environment by learning and perceiving information to elicit a behavior. Stated another way, there exists a shared interrelationship between cognitions, the environment, and behavior, whereby self-efficacy is central to this agentic mechanism (Bandura, 1986). Self-efficacy is defined as the belief that one has in successfully executing a behavior required to produce a certain outcome, and thus can be considered situation specific self-coincidence (Bandura 1977,

1997; Feltz, 1988). Combined with one's capabilities, efficacy expectation will influence one's choice of activities, as well as, the amount and duration of effort (especially in challenging conditions). Thus, high self-efficacy beliefs are indicative of high goal pursuits.

> They affect whether individuals think in self-enhancing or self-debilitating ways, how well they motivate themselves and persevere in the face of difficulties, the quality of their emotional wellbeing and their vulnerability to stress and depression, and the choices they make at important decisional points. (Bandura & Locke, 2003, p. 87)

Level, strength, and generality are three dimensions by which self-efficacy varies (Feltz, Short & Sullivan, 2008; Gernigon & Delloye, 2003). Level of self-efficacy refers to an individual's perceived performance ability at different levels of task demands, while strength of self-efficacy is the degree of certainty an individual may have in the achievement of an anticipated outcome. The third dimension, generality, refers to how applicable one's efficacious belief is to other domains (e.g., other sports), however, it is not as commonly studied in sports, possibly because coaches and athletes tend to specialize in one sport (Feltz et al., 2008).

Self-efficacy is an unfixed state, which is moderated by four sources. Bandura (1977) has asserted that the four principal influences are past performance, vicarious experience, verbal persuasion, and physiological state. The dependability of these principal factors biases the change in self-efficacy. Past performance has the strongest influence on efficacy perceptions because they are based on an athlete's mastery experience (Feltz, 1988). An athlete who continually experiences perceived success will have elevated efficacy expectations, while an athlete whose perceived repeated experience is failure will have decreased efficacy expectations (Feltz, 1988; Gernigon & Delloye, 2003). For example, if a 400m runner consistently ran faster than 45 seconds in his previous five competitions, his self-efficacy may be high, even after

experiencing a mishap. However, if the runner ran slower than 45 seconds in the five subsequent competitions, his self-efficacy may greatly decrease. Additionally, the influence of performance experience on self-efficacy is dependent on degree of effort, task difficultly, the amount of physical direction attained, as well as, the temporal patterns of success and failure (Bandura, 1977; Feltz, 1988).

By comparison, vicarious experience involves seeing others demonstrate mastery and using social comparisons to gauge one's own ability to perform similarly. Likewise, verbal persuasion is the persuasive technique of positive appraisal mentioned by the athlete (self-talk), coach or others, thereby promoting efficacy. To be effective verbal persuasion must be realistic and from a credible source (Bandura, 1977; Feltz, 1988; Hardy et al., 1996). Finally, the influence of physiological arousal on self-efficacy is dependent upon the cognitive appraisal. If heightened arousal is perceived as being ready to compete, self-efficacy may be raised, however, if heightened arousal is perceived as negative stress, self-efficacy may be lowered (Bandura, 1977). Supporting Bandura's (1977) theory, in an in-depth series of studies which looked at the relationship between performance and self-efficacy, Feltz and colleagues (1979, 1982, 1983, 1988, 2008) have shown self-efficacy to be an influential predictor of future performance, and that performance experiences are a greater influence on self-efficacy than physiological arousal.

There has been tremendous support for self-efficacy, with the predictive strength of self-efficacy resting in task-specific measures (Moritz, Feltz, Fahrbach, & Mack, 2000). Assessing the correlation between self-efficacy and performance, Moritz et al. (2000) conducted a meta-analysis of 45 studies and found a moderate correlation of .38, on average, between task-specific self-efficacy and performance.

To test the sport specific model of Bandura's (1977) self-efficacy theory, Vealey (1986) developed the concept of sport confidence. Sport confidence is defined as, "the belief or degree of certainty individuals possess about their ability to be successful in sport" (Vealey, 1986, p. 222). Assessing athletes' belief in their ability to be successful, Vealey determined that trait sport-confidence and competitive orientation interact to influence state sport-confidence (Vealey, 1986). Furthermore, by attending to sport-confidence, Vealey and colleagues (1998) determined the validity and reliability of nine salient sources of confidence – mastery, social support, physical/mental preparation, coaches' leadership, demonstration of ability, vicarious experience, environmental comfort, situational favorableness, and physical self-presentation. Her substantiated results, has provided the field of sports psychology with the Sport-Confidence Questionnaire, a task-specific measure of self-efficacy.

Elite athletes have been found to have greater self-confidence than non-elite athletes in various studies (Gould, Weiss, & Weinberg, 1981; Highlen & Bennett, 1979; Jones, Hanton, & Swain, 1994; Mahoney, Gabriel & Perkins, 1987). However, there has been a dearth of research evaluating the process (i.e., behavior and thought patterns) underlying the effects of self-efficacy. It is understood that individuals with high self-efficacy will set goals and demonstrate a greater commitment to these goals (Locke, Frederick, Lee, & Bobko, 1984). In the face of set backs, effort and persistence will increase, while individuals with low self-confidence are likely to resign (Bandura, 1997). Additionally, performers with high self-confidence will attribute failures to lack of effort and low self-confidence performers will attribute it to lack of ability (Bandura, 1997). It is therefore, reasonable to assume elite athletes (understood to have higher levels of self-confidence) will set high goals, remain committed to their goal pursuits and in the face of setbacks apply greater effort and persistence, while attributing most failures to lack of

effort. However, as suggested by Hardy et al. (1996) future studies are needed to evaluate this assumption, comparing elite athletes to non-elite athletes.

Achievement Motivation

In addition to confidence, the long-term development and maintenance of an elite athlete requires a commitment of effort, time, and resources. For any athlete to make the shift from good-to-great, motivation must play an intricate role. Motivation is a willful, personal, and a dynamic construct varying over time and within an individual. While motivation influences the acquisition of an individual's skills and abilities, it also influences how and how much individuals utilize their skills and abilities (Locke & Latham, 2004). Motivation, highly studied in organizational and sports psychology, is a hypothetical construct that involves three general psychological processes: (a) arousal (desire to attain a state or object one may feel deficient in); (b) direction (choice of action); and (c) intensity (the amount of effort that one applies) (Mitchell, 1997). The result of these motivational processes produces a focus of one's attention, effort, persistence, and task strategies, thereby collectively influencing performance (Locke & Latham, 2004; Mitchell, 1997).

Intrinsic and Extrinsic Motivation

Early theories of motivation, such as behavioral and needs theories, depict behavior as being directed by the fulfillment of inspired needs (Atkinson, 1964, 1967; Maslow, 1943, 1987; Murray, 1938; Reinhourth & Wahba, 1975, Thorndike, 1911, 1927). However, more recent theories have explained behavior according to motives and cognitions at the time (Bandura, 1986; Deci & Ryan, 1985; Weiner, 1972, 1985). The dedication and pursuit of goals that elite

athletes have may be directed by various reasons, including intrinsic and extrinsic motives (Vallerand & Losier, 1999). Extrinsic motivation provides tangible rewards (e.g., trophies, money, and acknowledgment) and is influenced by the degree to which they are self-determined. Comparatively, intrinsic motivation is understood to involve activities voluntarily chosen which are fun, pleasurable, and provide optimal challenge; offering a stronger influence on the motivation of elite athletes (Mallett & Hanrahan, 2004; Vallerand & Losier, 1999; Vallerand & Reid, 1984).

Mallett and Hanrahan (2004) interviewed 10 elite track and field athletes who had either competed in the Olympic Games or World Championships to determine their driven motivation. In addition to finding they held strong self-belief and prioritized track and field in their lives, elite athletes were also highly driven by personal goals and achievement. "The achievement of goals provided them with a sense of accomplishment which, in turn, positively influenced self-determined forms of motivation" (Mallett & Hanrahan, 2004, p. 191). Their findings suggest the achievement of personal goals promotes perception of competency and intrinsic motivation.

According to the cognitive evaluation theory, intrinsic motivation is influenced by locus of causality and competence. Internal locus of causality refers to the degree by which an action is perceived to be self-determined and external locus of causality is the degree to which an action is perceived to be initiated outside of one's control (Deci & Ryan, 2000; Hardy et al., 1996; Vallerand & Reid, 1984). Intrinsic motivation is directly proportional to how individuals perceive their performance is competent and self-determining (Deci & Ryan, 2000). For elite athletes to maintain a high degree of commitment, resiliency to setbacks, and dedicated time to training, they must believe their actions are autonomous and demonstrate competency. Hardy et

al. (1996) points out that this implies elite athletes must receive positive feedback to feel like they have some control in their program to sustain motivation over the course of their career:

> There are at least two obvious implications of cognitive evaluative theory for sustaining the high levels of motivation that are necessary for elite performance: athletes must receive positive feedback about their personal competence; and athletes must feel that they are (at least partially) responsible for the initiation of the training (and performance) behaviors which have led to their success. (Hardy et al., 1996, p. 76)

Thus, through the achievement of challenging goals their perceptions of competence and self-determination enhance their intrinsic motivation (Hardy et al., 1996).

Casual Attribution

Attribution theory is an area of motivation that considers the perception an individual may have about the causes of an event (Brophy, 2004; Weiner, 1972, 1985). While various theories of achievement attributions have been offered, the work of Weiner (1972, 1985) has predominately been accepted in sports psychology. Extending on Heider's (1944, 1958) basic attribution model, Weiner (1972, 1985, 2008) proposes that achievement motivation and behavior are dependent upon the attributions to which individuals ascribed their successes and failures. Specifically, attributions are believed to influence motivation by mediating the amount of effort or persistence directed towards a given task. According to Weiner (1972, 1985), attribution is triggered by an achievement oriented outcome, whereby, an individual interprets the results as positive or negative. Following this interpretation a causal search is implemented to understand why the result occurred, with the causal attribution of achievement evaluated along three dimensions - stability, locus of control, and locus of causality (Rees, 2005; Weiner, 1972).

By understanding the causes assigned to a given behavior, attribution theorists believe that behaviors can be managed, modified, and guided to positively influence future actions.

The first dimension, stability, refers to an ascribed factor's consistency over time. For example, ability may generally be viewed as stable, however, if a skill is being learned, ability may be unstable. Generally, stability affects an individual's expectancy of future success. An individual would expect similar results (success or failure) if an attribution is perceived to be stable, comparatively, an unstable attribution may result in an uncertain expectancy.

The second dimension, locus of causality, accounts for the cause of an outcome being perceived as internally or externally based. Accordingly, the origination of task difficulty and luck are outside of an individual and considered external causes, while ability and effort deriving from within an individual are internal causes (Bar-Tel, 1978). Essentially, an attribution of internal cause increases pride with success and shame in the face of failure. Moreover, emotional affect will involve stronger feelings with internal attributions, compared to external attributions (Gill, 2000).

Finally, the third dimension, locus of control, "distinguishes between factors that are internal but not very controllable" (Gill, 2000). Controllability refers to an individual's perception of an outcome being within one's control or outside of one's control. The perceptions of controllability are believed to have an effect along the continuum of confidence, guilt, anger, and gratitude (Bar-Tel, 1978; Gill, 2000; Weiner, 1985). An individual, who perceives his success as controllable, will be confident and motivated in his efforts, while an individual, who perceives his failures as controllable, may feel guilty. Likewise an individual who perceives her success as uncontrollable may be grateful for the outcome or sympathetic for her opponent, and angry or even surprised if she perceives her failure as uncontrollable.

To be successful, elite athletes must demonstrate acquisition of skills and possess a high level of self-efficacy and competency. According to Weiner's (1972, 1985) attribution theory, athletes with a high level of confidence will ascribe success to stable and internal factors within his or her control, while ascribing failure to unstable and external factors outside of his or her control. They will also experience a sense of pride, confidence, and motivation of continued effort. Comparatively, a less talented athlete or an athlete with a low level of confidence may likely credit success to unstable and external factors outside his or her control and failure to stable, internal factors within his or her control. This individual is also at risk of developing learned helplessness, self-handicapping behavior, or defensive pessimism (Johnson & Biddle, 1989; Martin, Marsh, Williamson , & Debus, 2003).

Self-handicappers will place obstacles in their path as a means of averting poor performance away from competence. Similarly, defensive pessimists tend to set extremely low expectations, avoiding poor evaluation of competency. In both instances, ability may be viewed as a measure of self-worth (Martin et al., 2003). Therefore, an individual who has a perceived low ability may hold a low self-worth. Attributing stable, internal, and controllable factors to successful performances more than failures offer a self-serving bias, which protects one's self-worth (Miller, 1976; Miller & Ross, 1975).

Furthermore, Vallerand (1987) has proposed that individuals will make intuitive and reflective appraisal of performance. Intuitive appraisal is the initial assessment that naturally occurs following the outcome of a performance. Comparatively, appraisal is a thoughtful reflection on performance and involves the attributional processes. It is the intuitive appraisal that is the primary emotional response to success and failure offering a superior role to that of

reflective attribution. Thus, successive success leading into a major championship is an influential factor for elite athletes.

Overall, the implication of attribution research suggests elite athletes make internal, controllable, and unstable attributions for failure and internal, controllable, and stable attributions for success. Furthermore, elite athletes may engage in self-serving biases to protect their self-worth and avoid spiraling in a learned helplessness or self-handicapping behavior. The attribution theory not only provides perceived explanations for resulting behavior, it also gives way to planned interventions to encourage positive attribution. However, like any theory it also has its weaknesses. In particular, it assumes individuals explain behavior along the same continuum, and does not account for individual differences. Likewise, the evaluation of success and failure, according to loss and win, does not account for the possible subjective evaluation of performance (Biddle, Hanrahan, & Sellars, 2001). Finally, Hardy et al., (1996) has urged researchers to conduct longitudinal studies to understand the actual antecedents and consequences of attributions.

Goal Perspective Theory

The desire to demonstrate competency, as it relates to effort and ability, has also been explained with goal perspective theory. According to Nicholls (1984), achievement behavior involves "the goal to develop or demonstrate – to self or to others – high ability or to avoid demonstrating low ability" (p. 328). Thus, the perception of ability is a defining characteristic of Nicholls' (1984) achievement motivation. Nicholls' (1984) goal perspective theory was originally formalized to relate to academic achievement situations. However, this theory has also been validly applied and supported in athletic achievement situations (Carpenter & Yates, 1997; Fry & Duda, 1997; King & Williams, 1997; Lochbaum & Roberts, 1993; Williams, 1998).

A synthesis of theories, the goal perspective theory, provides insight to distinguishing high achievers from low achievers, and how to facilitate adaptive behavior to promote high performance.

Goal perspectives can be differentiated according to a person's disposition or state. Goal orientation is a developmental construct, referring to an individual's disposition to the attainment of an aim. In particular, Nicholls (1984) has identified task goal orientation and ego goal orientation as two types of goal perspectives. Task goal orientation involves an undifferentiated notion of ability. Ability is demonstrated by developing proficiency, exercising effort, and continued self-improvement. Thus, success and failure is subjectively evaluated according to a self-referenced criterion and advancement. Comparatively, an ego-goal orientation involves a differentiated conception of ability. Ability is demonstrated by surpassing the performance of a peer or a normative performance standard, with minimal effort (Cox, 2007; Nicholls, 1978, 1984; Nicholls & Miller, 1984). While success with less effort provides the perception of high ability for ego-goal oriented individuals, the application of less effort does not encourage the development of ability.

By comparison, goal involvement is "a situation-specific state" referring to how an individual approaches an achievement situation at a given moment (Cox, 2007). Similar, to goal orientation, goal involvement consists of task-involved and ego-involved perspectives. The given goal involvement is said to be determined by the interaction of dispositional differences, situational constraints (e.g., motivational climate) and the developmental differences of an individual (Fry & Duda, 1997; Georgiadis, Biddle, & Auweele, 2001). The desire to demonstrate mastery for a given situation is understood to be task-involved; whereas, actions concerned with demonstrating ability according to evaluation or extrinsic rewards are ego-involved (Cox, 2007;

Jagacinski & Nicholls, 1984). Jagacinski and Nicholls (1984) compared the emotive effects of task-involved and ego-involved goal orientation in an achievement situation with college students. They found a task-involved goal orientation with high effort, provided a sense of pride and competence, and minimized the feelings of guilt and embarrassment. Ego-involvement combined with high effort resulted in a lesser feeling of competence and pride, while maximizing the feelings of guilt and embarrassment. Thus, the application of higher effort in task-involved situations heightened the perception of ability, while in ego-involved conditions, perception of ability was low.

Implicit theories of abilities, consisting of an incremental theory and entity theory, have been offered to explain differences in task and ego orientation. Individuals who support an incremental theory approach, view ability as something that can be improved upon through effort. Comparatively, individuals who ascribe to an entity theory see ability has a fixed entity, which cannot be modified through effort. Therefore, individuals who hold an incremental theory view are more likely to set mastery goals, persist in their efforts, and experience successful achievement. Likewise an individual who holds an entity theory view is more likely to set performance goals and develop maladaptive behaviors in achievement situations (Brophy, 2004).

Lochbaum and Roberts (1993) studied the relationship of goal orientations and achievement behaviors in athletes, and found task-involved athletes valued persistence, effort, working hard in practice, and pursuing mastery of a skill. On the other hand, ego-involved athletes did not value persistence or effort as achievement strategies, but they valued normative ability evaluation and practice as an opportunity to demonstrate ability. Thus, athletes who were task-oriented valued adaptive achievement behaviors, while ego-oriented athletes valued possibly maladaptive achievement behaviors.

Likewise, King and Williams (1997) considered goal orientation and performance in traditional martial arts and contest-oriented martial arts. Akin to task orientation, traditional martial arts focuses on mastering of technical skills and replicating self-defense techniques. Comparable to ego orientation, contest martial arts teach technical elements, without the emphasis on mastery, but a focus on tournament and competition preparation. The researchers determined that task orientation was positively related to martial arts performance and enjoyment, while ego orientation correlated to the belief that external factors and high ability results in successful performance.

However, considering the orthogonal design of task orientation and ego orientation, additional studies have emerged providing support for high ego orientation in the presence of high task orientation (Dunn, Dunn & Syrotuik, 2002; Fox, Goudas, Biddle, Duda, & Armstrong, 1994; Georgiadis & Auweele, 2001; Hodge & Petlichkoff, 2000). Using hierarchical class analysis, Georgiadis et al. (2001) were able to present ideographic profiles of high task-high ego, high ego-low task, low ego-high task and low task–low ego oriented athletes. Four players were selected for an in depth interview from among 72 cricketers. Overall, with the exception of low task-low ego oriented individuals, they found a positive and adaptive profile for the high task-high ego, high task-low ego and low task-high ego oriented athletes. The high task-high ego oriented athletes demonstrated the most encouraging and motivating profile. This athlete held a balanced evaluation of ability according to self-reference and normative referenced standards. For the high task-low ego oriented athlete, effort and persistence were stressed in demonstrating ability. The high ego-low task oriented stressed normative evaluations and some conflicting emotions (such as scared and excited). Nonetheless, appearing on a higher level, the positive conditions outweighed the presence of negative conditions, providing a highly motivated profile.

By comparison, the low task-low ego oriented individuals demonstrated opposing and inconsistent emotions. With an emphasis on pre-competitive conditions, this athlete had the least adaptive profile.

While Georgiadis et al. (2001) distinguished athletes according to extreme group profiles (i.e., high task-high ego, high ego-low task, low ego-high task and low task–low ego oriented), Hodge and Petlichkoff (2000) suggested goal orientation may be more complex. Specifically, using cluster analysis, they grouped 257 rugby players into distinct goal orientations, which were not restricted to extreme group profiles but varied according to low, high, and moderate profiles. Mixed goal profiles were determined to include low ego-high task, high ego-moderate task, and low ego-moderate task orientation. These groupings demonstrate the variance in goal orientation groupings that is not necessarily captured in extreme profile groupings. Moreover, a low task orientation profile was absent when performing the cluster analysis, further supporting the relevance of moderate to high task orientation in athletes. Considering the inherent presence of moderate to high task orientation in athletes and emphasis of normative standards in sports, Hodge and Petlichkoff (2000, p. 269) suggested that ego-orientation may play the most significant role in determining "adaptive achievement-related behaviors." They posited the varying levels of ego-orientation interact with task orientation to influence whether a maladaptive behavior (e.g., reducing effort) is reinforced or masked. Paralleling the results of Georgiadis et al. (2001), their findings demonstrated moderate to high task-high ego orientation offered the most adaptive achievement behavior, whereby these players held high levels of perceived rugby ability.

Hardy et al. (1996) have argued that careful consideration must be made for elite athletes with regards to goal orientation. Elite athletes may be assumed to have a high level of perceived

competency. Current research consistently shows low perceived competency coupled with high ego orientation is most detrimental (Dunn et al., 2002; Fox et al., 1994; Georgiardis et al., 2001; Hodge & Petlichkoff, 2000). As such elite athletes should be exempt from this pitfall. Moreover, there is some support for high ego orientation and high task orientation in the presence of high performance and a positive motivational climate (Dunn et al., 2002; Fox et al., 1994; Georgiardis et al., 2001; Hodge & Petlichkoff, 2000). Hardy et al. (1996) posit elite athletes may appropriate their application of goal orientation to facilitate their motivation. Whereby, an ego orientation may support long-term goals and a mastery orientation supports daily training objectives (Burton, 989; Jones & Hardy, 1990; Kingston & Hardy, 1994).

Motivational Climate. The motivational climate is a situational factor that also influences an individual's perception of ability and goal involvement (Nicholls, 1989; Pensgaard & Roberts, 2000). While motivational climate has been predominately studied with students (Ames, 1992; Ames & Archer, 1988) some researchers have found it to be an influential component in the domain of sports (Pensgaard & Roberts, 2000, 2002; Ommundsen, Roberts, & Kavussanu, 1998; Smith, Smoll, & Cumming, 2007). Pensgaard and Roberts (2002) examined the climate perception of elite athletes, as well as the coach's influence on the perceived motivational climate. Seven Norwegian athletes who competed in skiing in the 1994 Winter Olympic Games were interviewed and completed the Perception of Success Questionnaire (POSQ; Roberts et al., 1998) and the Perception of Motivational Climate Questionnaire (PMCQ; Seifrig, Duda, & Chi, 1992). They found athletes had both high ego and task orientation. Additionally, the motivational climate provided by the coach was determined to be significantly important. While an outcome oriented climate of winning was not mentioned by any of the athletes; a thoughtful and inclusive mastery climate was emphasized as ideal. Comparatively, Pensgaard and Roberts

(2000) found that in a perceived performance climate the coach was identified as a source of distress in athletes with a perceived low ability.

It should be noted that both of these studies evaluated athletes' perception of motivational climate at the Olympic Games, which is understood to be a source of stress in elite athletes (Lazarus & Folkman, 1984). Therefore, it is possible that performance climates with a focus on outcome further exasperate stress in this situation. Nonetheless, one can take from this that there is evidence that motivational climate influences one's perception of ability and goal involvement. Moreover, the coach can positively or negatively influence the motivational climate for an athlete. Fortunately, the motivational climate is easier to control than one's goal disposition (Hardy et al., 1996). It would appear that a mastery climate is best supported by elite athletes in a competitive environment (Pensgaard & Roberts, 2000, 2002). By understanding the ideal motivational climate for an athlete, the coach can facilitate goal performances.

In summary, it appears that a motivating and adaptive profile requires an integration of task and ego orientation. Coupled with high task orientation, high ego orientation is not necessarily a negative construct. In contrast, high ego orientation may bolster motivation, competitive spirit, and overall performance (Hodge & Petlichkoff, 2000). Athletes may be driven to compete by intrinsic or extrinsic motivation. However, it is intrinsic motivation that sustains an athlete's commitment to achievement. Intrinsic motivation is strengthened by an athlete's perceived competence and self-determination. Elite athletes will pursue challenging goals, which further encourage motivation by their acquisition. This desire to demonstrate competency is the basis of the goal perspective theory (Nicholls, 1984; Pensgaard & Roberts, 2000); whereby task goal and mastery goal perspectives differentiate one's view of effort and ability. It is reasonable to assume elite athletes have a high perceived competency as well as a

high ego and mastery orientation, aptly applied to serve their continued motivation to their sport and pursuit of excellence. Additionally, goal orientation is not restricted to an individual's disposition, but can equally be influenced by a situation or the motivational climate.

Goals

Traditional goal theorists have emphasized two types of goals – mastery (learning/task-involvement) goals and performance (ego-involvement) goals (Ames & Archer, 1988; Dweck & Leggett, 1988; Nicholls, 1984). Mastery goals reflect an individual's desires to improve their competency, while performance goals demonstrate their desire for favorable evaluation of their competency. Mastery goals position effort and ability to be positively related, with failure signaling the need for more effort. On the other hand, performance goals create an inverse relationship between effort and ability, with failure resulting in anxiety, shame or self-protective posture (Dweck & Leggett, 1998). Generally, early goal theorists concur that mastery goals are more fruitful than performance goals. Mastery goals promote learning, competency, improvement in abilities, and enjoyment, whereas performance goals encourage a helpless orientation (Brophy, 2004).

Contemporary goal theorists have extended goals to include the dimensions of approach and avoidance, for both mastery goals and performance goals. Initial inclusion of an approach-avoidance dimension extended only to performance, presenting a trichotomous achievement goal framework (Elliot & Church, 1997; Halvari & Kjormo, 1999). However, Elliot and McGregor (2001) recently demonstrated an approach-avoidance dimension in mastery as well. Specifically, they posit competence and valence are two fundamental dimensions of achievement goals. Competence entails mastery (intrapersonal and absolute) and performance (normative), while avoiding failure and approaching success are the valence. Mastery-approach goals are

considered to present the greatest benefits, associated with enjoyment, acquired skills, and optimal performance. They promote a need for achievement, self-determination, competence, deep processing, and subsequent mastery approach goals. In mastery-avoidant individuals "the evaluative referent is specific to the task itself or the person's own attainment trajectory, and the focus is on avoiding a negative possibility" (Elliot & McGregor, 2001, p. 502). Thus, non-favorable antecedents, such as fear of failure and entity theory, are components of avoidance and can lead to subsequent mastery and performance avoidance goals. By comparison, performance approach goals are associated with competitiveness, fear of failure, competence valuation and lead to surface processing, and subsequent performance approach goals. Nonetheless, performance-approach goals have been argued to be adaptive in some settings, and have been the topic of much debate in goal theory literature (Brophy, 2005; McGregor & Elliot, 2002). Performance-avoidance goals, considered the least favorable, have been determined to be antecedents of fear of failure, entity theory and competence valuation. Likewise consequences are surface processing with negative deep processing, disorganization, and subsequent performance avoidance. Typically, performance-avoidance goals are related to less favorable performance than performance approach.

Recently, arguments have been made to support a multiple-goal perspective, of both performance and mastery approach goals (Regner, Escribe, & Dupeyrat, 2007). Here, it is believed that performance goals, according to social comparison, can be beneficial. The very nature of competition embodies striving for satisfaction when making comparisons with some standard of excellence in the presence of evaluative others (Martens, 1987). Thus, competition appears to encourage social comparison.

Social comparison allows for evaluation of self through the performances of others (Regner, Escribe, & Dupeyrat, 2007). Specifically, two types of social comparisons are upward comparison and downward comparisons (Carmona, Buunk, Dijkstra, & Peiro, 2008; Regner, Escribe, & Dupeyrat, 2007; Wills, 1981). Upward comparison occurs when an individual compares himself with someone who is performing in a more successful way than he is. Downward comparison occurs when an individual compares herself with another who is performing less competently. Individuals who engage in downward comparison can improve their perception of self, by comparing themselves to someone who is inferior (Wills, 1981). Comparatively, upward comparison has been found to degrade self-efficacy, resulting in feelings of frustration and resentment towards others who were doing better (Carmona et al., 2008). Consequently, social comparison can be beneficial, as well as impair or limit performances.

Some researchers have suggested that multiple-goal perspectives consider performance goals as they relate to self-reference (Brophy, 2005; Martin, 2006). Personal bests (PBs) represent incremental self-referenced improvements an individual may use to assess his/her success. Martin (2006) proposed a quadripolar PB model, whereby PBs are likely to be attained on tasks/goals that were specific, challenging, competitively self-referenced and self-improvement based. With students competing against their previous performances, Martin (2006) found that the four-factor model predicted persistence, class participation, educational aspiration, and enjoyment of school. Void of social comparison, this model reflects a mastery orientation as the primary construct and performance orientation secondary.

The achievement of mastery and/or performance goals allows individuals to demonstrate competency as defined by the goal perspective theory. While traditional theorists (Ames & Archer, 1988; Dweck & Leggett, 1988; Nicholls, 1984) believe mastery goals to be superior to

performance goals, a mulitple-goal perspective inclusive of both goals, appears to be beneficial (Brophy, 2004, 2005; Martens, 1986; Regner et al., 2007). Additionally, a self-referenced comparison seems to facilitate adaptive behavior performance.

Goal Setting Strategies

Goal setting is a vehicle that can directly influence performance. Heavily researched as it applies to organizations, Locke and Latham (1985) first suggested the findings of goal-setting could be applied to the sporting environment. Goal setting theory posits that there is a positive linear relationship between goal difficulty and task performance (Latham & Locke, 2007; Locke & Latham, 2002; Seijts & Latham, 2001). According to goal setting theorists, goal setting improves performance by directing attention, mobilizing effort, invoking persistence, and providing the development of new learning strategies (Latham & Locke 2007). The success of goals is dependent upon the presence of goal acceptance, commitment, and flexibility (Erez & Zidon, 1984). Additionally, goals are moderated by ability, commitment, feedback, task complexity, and situational factors (Latham & Locke 2007; Locke, Mento & Katcher, 1978).

In the sport psychology literature, at least three types of goal setting strategies have been identified: outcome, performance, and process goals (Ames & Archer, 1988; Cox, 2007; Dweck & Leggett, 1988; Kingston & Hardy, 1997; Nicholls, 1984). Outcome goals emphasize the outcome of an event and usually include a normative or social comparison. For example, winning a race, defeating a competitor or a ranking are outcome goals. Performance goals also emphasize an end product of performance and involve a comparison, however, it is self-referenced. The absolute standard is independent of competitors, flexible, and within the control of the athlete. For example, an athlete setting a goal of running a personal best of 10 s in the 100m sprint is a performance goal. Thereby, athletes can raise or lower their goals, and set

realistic goals according to their ability. Compared to outcome goals, performance goals provide high motivation, lower anxiety and greater success (Burton, 1989). It would appear that the achievement of performance goals, would likely result in a given outcome goal (Cox, 2007). Some researchers (Deci & Ryan, 1985; Hardy et al., 1996) have argued that performance goals can equally provide the negative motivational consequences associated with outcome goals. When a realistic and acceptable goal becomes difficult to achieve that goal can become unacceptable, resulting in elevated anxiety and depressed motivation. Process goals focus on specific technical or desired behaviors to elicit during a performance. A sprinter focusing on driving out of the blocks in the beginning of a race is an example of a process goal. Process goals are enablers of skill development, effort, and ability. Through consistent achievement and the improvement of the perception of control, process goals may increase self-efficacy (Kingston & Hardy, 1997).

The implementation of goal setting energizes athletes, provides a sense of control, increases self-efficacy, and encourages deliberate practice. To be effective, goals must be specific, challenging, proximal as well as collective, in the presence of a team (Locke & Latham, 1985, 1990). Various studies have found specificity of a goal leads to greater performances than a vague "do as well as you can" goal (Latham & Yukl, 1975; Locke et al., 1978; Locke, Shaw, Saari, & Latham, 1981). Moreover, specific process goals lead to higher performances than either outcome goals or "do your best" when an individual lacks the knowledge or the skill (Seijts & Latham, 2001, 2005; Seijts, Latham, Tasa, & Latham, 2004; Winters & Latham, 1996). By making a goal specific, an athlete is able to provide a tangible quantitative measure to his or her objective. Likewise a challenging goal invokes motivation. A high challenging goal requires a greater performance from an individual, which results in greater positive affects than a lesser

goal (Latham & Locke, 2007; Locke, 1965). Proximal goals can be used to achieve distal goals. They provide a means of chunking and feedback as to whether individuals are on track with achieving their ultimate goal. Finally, the collectiveness of a goal refers to its inclusivity of a team's objective and its players.

There has been some support for Locke and Latham 's (1990) findings and application of goal-setting in sports (Burton, 1989; Hall et al., 1987; Tenenbaum, Weinberg, Pinchas, Elbaz, & Bar-Eli, 1991). However, there have also been some discrepancies. In the organizational and management environment various studies have found specificity of a goal leads to greater performances than a vague "do as well as you can" goal. In the sporting environment, studies have failed to demonstrate a significant difference in performance and additionally have found process goal strategies can enhance performance (Filby et al., 1999; Hall et al., 1987; Weinberg et al., 1987).

Some researchers have suggested this discrepancy may be attributed to achievement orientation and self-management being more typically found in athletes, where the very nature of being an athlete involves competition (Filby et al., 1999, Hardy et al., 1996). Additionally, some studies have focused more on aspects of performance goals (i.e., specificity, proximity, and challenge) as opposed to the complete training plan (Kingston & Hardy, 1997). Many researchers (Burton, 1989, 1992; Hardy et al., 1996; Kingston & Hardy, 1997; Roberts, 1986) have now begun to distinguish between types of goal strategies and their influence on performance.

Generally, outcome goals have been discouraged, however, based on their empirical experience with elite athletes, Hardy and colleagues (1996) believe that elite athletes actually use multiple-goal strategies in different situations to sustain motivation and achieve world-class

performance. Specifically, they suggest outcome goals set well in advance and becoming naturally salient in the presence of a competition will motivate effort and strategy development. Likewise, performance goals emphasized early in an athlete's yearly training plan, becoming inherent in competition can increase self-confidence. Finally, process goals used in training, motivates athletes to sustain the necessary commitment demanded by their training routine, while additionally assisting in the allocation of attentional resources and increasing self-efficacy (Hardy & Nelson, 1988; Zimmerman & Kitsantas, 1996, 1997).

While goal setting strategies have been heavily researched in the organizational management field, there is a dearth of research in sports psychology. In a literature search of multiple-goal strategies and sports only one study by Filby and colleagues (1999) was found. Filby et al. (1999) evaluated the influence of four different goal strategies (outcome goal only, process goal only, outcome and process goal, and outcome performance and process goal) and a non-goal condition on a training and competition soccer task. Performance was measured over a 5-week period and demonstrated support for a multiple-goal strategy. They found both multiple-goal strategies groups to perform significantly better in training and competition than the groups using only one goal or none. Furthermore, like Hardy et al. (1996) they suggest a balance should be considered when setting outcome, performance, and process goals, while considering the situation/condition they are being applied to. Given the various antecedents it influences (e.g., self-efficacy, effort, skill acquisition) and its direct impact on performance, there is a need for researchers to study goals and multiple-goal strategies in elite athletes.

While the practice of goal setting provides a plan for achieving success, for an athlete who has consistently failed at accomplishing his goal, goal disengagement may be necessary. Specifically, goal disengagement is defined as the abandonment of effort and commitment from

a goal perceived to be unattainable (Wrosch, Scheier, Miller, Schulz, & Carver, 2003). It allows an individual to avoid accumulated failure experiences, frees personal resources (e.g., energy, emotional investment, and money) and provides individuals with an opportunity to redefine what is important to them for satisfaction. Wrosch et al. (2003) determined disengagement from unattainable goals was independently associated with high levels of self-mastery, low levels of perceived stress, and intrusive thoughts. Moreover, reengaging in new meaningful goals allowed individuals to manage failing to achieve unattainable goals. Reengagement in new goals allows individuals to compensate for the distress associated with the occurrence of unattainable goals.

Considering an athlete who has been unsuccessful with achieving her athletic objective, temporary disengagement from that goal may be fruitful. The failure to achieve the goal may not be related to ability but a culmination of various factors, such as distraction, a predominant outcome focus or deficient self-efficacy for example. The disengagement may serve to provide the necessary shift in positive affective emotions, to free up necessary resources. By disengaging, an athlete may revisit that goal at a later time as she begins to reengage in a new goal emphasizing mastery (Wrosch et al., 2003). A mastery orientation encourages the development and improvement of skills, and thereby, enhances the athlete's self-efficacy (Donovan & Hafsteinsson, 2006). It can be posited that with progressive improvements, an athlete may engage in upward revision of goals, gradually increasing her performance goals, possibly re-exploring her previous goal or even superseding it.

In fact, Illies and Judge (2005) determined that favorable feedback produced positive affect, resulting in approach behaviors and higher goals. In cases where feedback was unfavorable, a negative affect was produced and resulted in avoidance. Likewise, Williams, Donovan, and Dodge (2000) found athletes would engage in upward goal revision when discrepancies between

their goals and actual performance were small and perceived to be in their control. When discrepancies were large or later in the season athletes would engage in a downward revision of goals. Thus, self-regulation, goal setting, and the effective selection of goals could offer pathways for improving performance. Even in cases where athletes continue to fall short of achieving their goals, it may be possible for them to turn their performances around.

In summary, the implementation of goal setting energizes athletes, provides a sense for control, increases self-efficacy and encourages deliberate practice. Process, performance and outcome goals are three types of goal strategies athletes will employ. The motivational consequences they afford are dependent upon goal commitment, acceptance, and flexibility. Moreover, it is believed that elite athletes actually engage in multiple-goal strategies, but there is a need for future studies to confirm this empirical observation. Finally, while goal-setting can promote performances, in the event where goals are not reached, disengagement and re-engagement may also prove to be beneficial.

Psychological Characteristics of Elite Athletes

A world record or Olympic gold medal performance can captivate a worldwide audience. One may wonder what it was about these athletes that allowed them to rise to the occasion. In discussing motivational achievement behavior, it is equally important to consider the characteristics of elite athletes. Defining qualities that distinguish good athletes from great athletes have been of some interest to sport psychology researchers (Gould, et al., 1981; Lee, Shaw, & Chesterfield, 2009; Mahoney & Avener, 1977; Morgan, 1980). The understanding of psychological skills and cognitive strategies offers a potential gateway to implementing change and improving performances in less successful athletes. Thus, while the physical ability of an

athlete is important in achieving great performances, the psychological skill of an athlete is also an influential factor.

Smith and Christensen (1994) compared and evaluated the significance of psychological and physical skill factors as determinants in predicting performance and survival in sport. Psychological skills were measured using the Athletic Coping Skills Inventory (ASCI -28) which assesses individual differences in psychological skills, according to seven subscales (a) coping with adversity, (b) peaking under pressure, (c) goal setting/mental preparation, (d) concentration, (e) freedom from worry, (f) confidence and achievement motivation, and (g) coachability. The psychological skills of minor league baseball players were assessed triangularly by players' self-reports, and the evaluations performed by managers and coaches. Additionally, the physical skills of each player were evaluated by the minor league staff members during the season. The researchers determined that physical skills did not correlate with psychological skills, seeming to be separate and independent factors. However, both physical and psychological skills were significantly and positively related to performances and survival in baseball.

One of the earliest studies to explore the psychological characteristics of elite athletes was conducted by Mahoney and Avener (1977). Thirteen male gymnast finalists for the US Olympic team were interviewed and completed a questionnaire evaluating their personality, self-concept, and competition and training strategies including dream frequency, imagery practice, and self-talk during competition. Mahoney and Avner's (1977) findings suggested that cognition patterns (e.g., dream frequency, self-talk and imagery) may strongly correlate with athletes who demonstrated better performances and successfully qualified for the Olympic Games team.

Since then, similar studies, although not all with Olympians, have followed and found cognition differences between successful and less successful elite athletes (Georgiadis et al.,

2001; Gould, Eklund, & Jackson, 1993a; Gould et al., 1981; Hodge & Petlichkoff, 2000; Mahoney, 1989). Mahoney, Gabriel, and Perkins, (1987) distinguished psychological skills between elite and non-elite athletes and found that elite athletes (a) experienced fewer problems with anxiety, (b) were able to employ better concentration, (c) were more confident, (d) used internal reference and kinesthetic mental preparation, (e) focused on their own performance more than the team's performance, and (f) were more highly motivated to perform. Likewise, Orlick and Partington (1988) found quality training, clear daily goals, imagery training, simulation training, mental readiness, commitment, and distraction control as among the various decisive factors identified by Olympians to positively influence performance. Moreover, elite athletes generally have a high task-moderate to high ego orientation (Georgiadis et al., 2001; Hardy & Gould,et al., 1996; Hodge & Petlichkoff, 2000).

In an in-depth comprehensive qualitative study, Gould and colleagues (2002) examined the psychological characteristics of Olympic athletes, as well as, how they are developed. Specifically, elite athletes were 10 Olympic champions with 32 Olympic medals between them from 9 different winter and summer sports. Athletes completed a battery of psychological tests to identify characteristics and an in-depth interview. Additionally, each athlete's coach and a parent, guardian, or significant other was interviewed, triangulating results. Overall, self-regulation of arousal, high confidence, concentration and focus, positive imagery and self-talk, a feeling of control without "forcing it" attitude, and high determination and commitment were identified as characteristics of Olympic champions. Furthermore, imagery, goal-setting, thought control, resiliency, and well developed competition, and pre-competitive mental plans were identified as strategies employed in peak psychological states. Interestingly, sport intelligence,

a moderate level of perfectionism, and high levels of dispositional hope and optimistic orientation emerged as additional characteristics of Olympic champions.

Gould et al. (2002) also determined that these characteristics developed over time and were influenced by various external factors (e.g., community, family, and friends) supporting their pursuit of excellence. These results support previous studies identifying characteristics of elite athletes, while also introducing sport intelligence, perfectionism, dispositional hope, and optimism as additional psychological characteristics to consider (Durand-Bush & Salmela, 2002; Gould, Weiss, & Weinberg, 1981; Greenleaf, et al., 2001; Lee & Chesterfield et al., 2009; Mahoney & Avener, 1977; Mahoney & Perkins et al., 1987; Orlick & Partington, 1988; Smith & Christensen, 1994).

More recently, Taylor, Gould, and Rolo (2008) studied the difference in performance strategies of 176 Olympians in both competition and training. Using the Test of Performance Strategies (TOPS) (Thomas, Murphy, & Hardy, 1999), a 64-item self-report instrument measuring psychological skills and strategies (i.e., goal-setting, relaxation, activation, imagery, self-talk, attentional control, emotional control and automaticity), they found medalists had greater emotional control and automaticity in competition, while non-medalists had greater negative thinking. Similarly, in practice the medalists exhibited greater, emotional control; however, non-medalists reported greater use of imagery. The authors suggested this greater use of imagery in non-medalists may be the result of these athletes rehearsing the skill mentally to improve their lesser performance demonstration.

Similarly, Vernacchia, McGuire, Reardon and Templin (2000) interviewed 15 US Olympians who competed in at least one Olympic Games between 1984 and1996 (including four Olympic medalists) to determine the psychological skills associated with the domain of track and

field and the preparation required to become an elite athlete. Interview questions were based on six themes: (a) dreams, (b) development, (c) obstacles, (d) mental preparation, (e) mental and physical qualities, and (f) advice to young athletes, which resulted in the emergent of four categorical themes: (a) mental skills/attributes, (b) developmental concerns, (c) socio-economic factors, and (d) spiritual/religious factors. Within the theme of mental skills and attitudes, having fun was identified as a quintessential factor. This enjoyment appeared to be linked to a desire to demonstrate event mastery. Patience, perseverance, and self-confidence were also identified as a necessary component to deal with setbacks and support a gradual development of skills. The most predominant mental skill used by these athletes was visualization.

Visualization allowed athletes to prepare themselves for possible competitive situations, increase mental confidence, and provide the kinesthetic feeling of successful technical execution. Dreams of successful achievements provided a source of motivation and inspiration for these athletes. Vernacchia et al. (2000) also found socio-economic factors to play an important role for these athletes. The theme of socio-economic factors included the ability to have a support system in place, whereby family, friends and spouse were a source of support. Likewise, having financial support made it possible to train optimally. Finally, spiritual/religious factors assisted athletes with remaining committed and believing in their athletic goals and ability.

Considering developmental concerns, athletes identified involvement in numerous sports at an early age as a contributing factor. Progression was gradual, with a consistent and ideal training plan, as well as a committed work ethic. Vernacchia et al. (2000) noted that in the early stages the coach provided specific direction but as the athletes matured the role of the coach became that of an advisor. Although, interviews were limited to 20 to 30 minutes, given that there are few psychological studies of elite track and field studies, these results are insightful.

In describing paramount performances mental toughness is an attribute often associated with elite performers. While it is highly referenced by coaches, sport psychology consultants, athletes, and the media, it is a phenomenon still lacking scientific rigor in its understanding. Jones et al. (2002) define mental toughness as "having the natural or developed psychological edge that enables you to generally cope better than your opponents with the many demands that sport places on a performer" (p.213). While Bandura (1997) suggests that mental toughness is just a more popular term for resilient self-efficacy: "resilient self-efficacy … is described in athletic circles as 'mental toughness'" (p. 383). Through several investigations with world class performers, mental toughness has been determined to have four dimensions with 13 sub-components (Jones et al., 2007). These dimensions include attitude/mindset, training, competition and post-competition, and are developed and maintained over four phases in an athlete's career.

MacNamera and colleagues (2010a, 2010b) have suggested that the psychological characteristics that facilitate elite performance are something which develops in the early stages of an athlete's career, becoming autonomous in later years. Supporting this claim, Connaughton, Hanton, and Jones (2010) found the development of mental toughness was long-term with transitions between various phases of development characterized by a significant event (e.g., changing coaches or clubs, making a national team or winning a major event), whereby athletes transitioned from their initial involvement to an intermediate level, from an intermediate level to an elite level, and from an elite level to an Olympic/World Champion, and finally the maintenance phase.

Attitude/mindset represented the first dimension and was comprised of the attributes belief and focus. Specifically, athletes had an unshakeable self-belief in their ability to overcome

obstacles and perform. Athletes were also able to focus on a long-term goal, with the understanding that their current actions would influence the achievement of their goal. The second dimension, training, involved the subcomponents using long-term goals as the sources of motivation, pushing yourself to the limits, and controlling the environment. Development in these two dimensions was found to begin in the first phase of development (initial involvement to intermediate level). Athletes were found to engage in activities for fun, begin to develop mastery of skill and derive competition in training during this phase. Additionally, through the success of learning a difficult skill quicker than their peers, athletes also began to increase their focus and gain belief in their athletic ability.

Connaughton et al. (2010) found the third dimension, consisting of six attributes, to develop in the intermediate to elite level, and intensify in its development as athletes transitioned from the elite level to an Olympic/World Champion. Athletes did not let the actions of other performers negatively influence their performance. Likewise based on the success of previous experiences in training athletes developed an enhanced belief in self; they were able to bring the desired level of performance as needed, and stay internally focused and on the process regardless of the distraction. Athletes reported having a better awareness of their thoughts and feelings and were able to handle, adapt, and enjoy pressure.

Finally, mental toughness is influenced by the interacting effects of various factors such as motivational climate, social support, past experiences, psychological skills and strategies, and a drive for excellence (Jones et al., 2002, 2007). Once acquired, it was determined that mental toughness would wane if not maintained. The maintenance phase followed the sequential order of the dimensions attitude/mindset, training, competition, and postcompetition. Support networks both within and outside of sport, as well as preserving the correct balance with life and

sport served to be instrumental in the maintenance of mental toughness. Additionally, winning a major championship buffered the maintenance of a high level of mental toughness. Following the achievement of a goal, athletes need to set new, challenging goals, continue to have an insatiable desire for success and focus. Connaughton et al. (2010) determined a lack of new challenges, injuries, poor prioritization, or focus on a long-term goal affected the subcomponents belief and focuses in the attitude/mindset dimension, and thereby the maintenance of mental toughness. Comparatively, at the elite level, where high performance and possibly perfection is demanded, athletes may demonstrate perfectionism (Gould et al., 2002). Perfectionism is a personality construct characterized by striving for high achievement goals and a flawless performance accompanied by overly critical evaluation tendencies (Flett & Hewitt, 2002, 2005; Frost, Marten, Lahart & Rosenblate, 1990; Stoeber & Becker, 2008; Stoeber & Otto, 2006). While some researchers believe perfectionism to be maladaptive, it is actually multidimensional with both a negative and positive dimension (Flett & Hewitt, 2002, 2005). Negative perfectionism involves a fear of failure, excessive concern with mistakes and doubts with actions taken, which results in negative reactions to mistakes, performance anxiety, low self-esteem and confidence, as well as burnout in sports (Flett & Hewitt, 2002; Frost & Henderson, 1991; Hamachek, 1978; Hardy et al., 1996; Stoeber, Otto, Pescheck, Becker, & Stoll, 2007).

These maladaptive characteristics associated with the negative dimension have often overshadowed its adaptive characteristics, which some researchers argued are found in athletes (Fedowa, Burns, & Gomez, 2005; Gould et al., 2002; Stoeber & Becker, 2008; Stoeber & Otto, 2006; Stoeber et al., 2007). The positive dimension of perfectionism involves high personal standards and a pursuit for positive achievement, enhanced self-esteem, satisfaction with performance, as well as positive expectations of future results (Frost & Henderson, 1991;

Hamachek, 1978; Stoeber et al., 2007; Stoeber & Otto, 2006). When the negative aspects of perfectionism are controlled for perfectionism can be adaptive, enhancing the performance of athletes (Frost & Henderson, 1991; Stoeber & Otto, 2006). In support of this, Gould and colleagues (2002) found Olympic Champions to be moderate perfectionists with a low negative dimension (e.g., low concern over mistakes, expectations of others and doubts about action). Similarly, Koivula, Hassmen, and Fallby (2002) found athletes with high self-esteem displayed a positive perspective of perfectionism. Hamachek (1978) suggested that positive perfectionists were motivated by positive reinforcement and likely to set realistic expectations. Likewise, Stoeber and Becker (2008) found athletes with a positive achievement pursuit in competition and a low reaction to mistake, demonstrated a high hope for success and positive attributions of success. Thus, world class athletes able to consistently sustain their level of success may display adaptive characteristics along the positive perfection dimension and less negative perfectionism.

The ability to cope with stresses associated with success and failure is equally a necessary psychological characteristic of elite athletes (Gould, Jackson, & Finch, 1993b; Lazarus, 2000a, 2000b; Nicholls & Polman, 2007; Poczwardowski & Conroy, 2002). Coping has been defined in various ways, however, in the sports psychology literature the transactional-process perspective, proposed by Lazarus (1999, 2000a, 2000b), has been heavily supported (Nicholls & Polman, 2007). The transactional-process perspective defines coping as "a process of constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (Lazarus & Folkman, 1984, p. 141). Rather than being a stable condition, coping is viewed as a dynamic construct interacting with the perceived internal (i.e., beliefs and goals) and external demands.

In a complete literature review, Nicholls and Polman (2007) looked at 64 studies conducted over a 16 year span of coping in sports, evaluating the coping strategies employed by athletes, and the differences found in gender, age, and coping effectiveness. They found that athletes use a wide variety of coping strategies dependent upon the individual and situation, with female athletes generally using social support to manage stress more than male athletes. Also, effective coping strategies appeared to positively correlate with age, whereby athletes were better prepared to cope with stress with age. Three effective coping models athletes may employ include (a) a goodness-of-fit (whereby, problem-focused coping is favorably applied when situations can be altered to reduce stress and emotion-focused coping are applied when situations cannot be changed) (b) automaticity of coping strategies, and (c) the actual coping strategy chosen (e.g., self-talk, relaxation, goal-setting, disengagement) (Anshel, 1996; Anshel & Kaissidis,1997; Eubank & Collins, 2000; Folkman, 1991, 1992; Gould, Eklund, & Jackson, 1993). While athletes strive for high performance, coping effectiveness is not related to a successful performance outcome. Rather coping effectiveness is a given strategy's ability to reduce stress.

Great athletes who achieve paramount performances also demonstrate an ability to sustain and repeat such performances. For many athletes, repeat great performances can be challenged by the distractions of external pressures, increased demands, and media attention (Durand-Bush & Salmela, 2002; Gould, Guinan, Greenleaf, Medbery, & Peterson, 1999; Greenleaf et al., & Dieffenbach, 2001; Kreiner-Phillips & Orlick, 1993). Kreiner-Phillips and Orlick (1993) interviewed 17 elite athletes who had won at least one major championship (i.e., Olympic Games, World Championship, World Cup and/or Professional Championship) and had either (a) continued success (continued to win after reaching the top in their sport), (b) declined and came

back (experienced a declined/depreciated performance after rising to the top of their sport for the first time), or (c) were unable to repeat their performance (experienced only one major championship victory). Overall, they found the ascent to the top for these athletes to be the same. The pre-event winning focus of these athletes involved feeling more relaxed than usual, a strong self-belief, focus, and an extra boost feeling. Likewise during the competition athletes reported feeling as if they were on autopilot maximizing their efforts. Additionally, with the exception of one athlete, all reported setting subsequent goals.

Differences among these groups emerged concerning their focus in subsequent performances. The continued success athletes carried the same focus they used in their initial win. However, the decline-and-come-back athletes and the unable-to-repeat-athletes shifted their focus to a results orientation. Specifically, focusing on outcome, high expectations, trying too hard or not having a clear mind with greater demands (e.g., media, focus, and sponsors) compromising their training and rest. To stay at the top, it appears that athletes must be able to positively manage the demands of winning while controlling their own (and other's) expectation. Kreiner-Phillips and Orlick (1993) recommended that athletes remember what it took to get to the top and to continue to implement what was working for them.

These results were supported by the findings of Gould and colleagues (1993a) who evaluated the positive and negative aspects of being a US national champion figure skater and the challenges of defending a championship title. Similarly, Gould et al. (1993a) determined that champion-defending athletes faced increased demands. They found external expectations and added responsibilities made it difficult for US national champion figure skaters to repeat their performance.

For some athletes the achievement of a top performance at a major championship may coincide with the achievement of a paramount long-term goal. Such success may negatively influence the motivation and/or commitment of future athletic objectives. Essentially, these athletes may have achieved a life goal and may not have another goal they desire to achieve in their sport. Yet, they may remain involved because they have not considered an alternative option despite not necessarily gaining any enjoyment from their sport (Hardy et al., 1996; Schmidt & Stein, 1991). According to Schmidt and Stein's (1991) model these athletes "may experience a sharp increase in costs with no attendant rise in rewards, the perception of low or nonexistent alternatives, and an increase in already-high investments in the sport, "leaving them susceptible to burnout and certainly lesser performances" (p. 260). Thus, according to Schmidt and Stein's (1991) model which distinguishes between athletes who continue to participate in their sport, burn out or drop out, an elite athlete may experience challenges with repeating a monumental top performance because they no longer derive the same enjoyment from their sport as they once did.

Research Gaps

In spite of the continuous efforts of researchers, there still exist some gaps in the elite athlete literature. In a comprehensive review of research concerning the psychological strategies and characteristics of elite athletes, Gould and Maynard (2009) outlined five areas of limitation. First, it is common for studies involving elite athletes to be retrospective in design. It is easier and less intrusive to interview elite athletes retrospectively. However, retrospective interviews may be compromised by memory details lost, biases, and attributions. A second limitation they identified was the means by which performance is assessed. Numerous studies evaluating elite athletes typically assess performance according to medals. However, Gould and Maynard (2009)

have suggested that perhaps more precise measures (such as self-referenced and personal best performance measures) should be considered. Third, researchers have been able to make distinctions between elite and non-elite athletes, but there is a dearth of research distinguishing less successful elite-athletes from more successful elite-athletes. Gould and Maynard (2009) suggested researchers should conduct more studies making this distinction to better understand elite athletes. Fourth, given the vast factors (Table 1) associated with successful performances, they encourage studies evaluating the interaction of these variables. Finally, Gould and Maynard (2009) call attention to a lack of theoretically driven studies. Such studies (e.g., Mallett & Hanraha, 2004; Philippe, Seiler, & Mengisen, 2004) that are theoretically driven, offer rich information, which can better provide insights on how these factors are developed, altered, and influenced.

In summary, the development of psychological characteristics and cognitive strategies of great athletes occur over time and are distinguishable from good athletes. Themes of self-regulation, resiliency, hard working and competitive, arousal control, self-confidence, and focus emerge has common characteristics among the best athletes. Elite athletes generally have a balanced high task-moderate to high ego goal orientation, and adaptive perfectionism. Additionally, cognitive strategies such as goal setting, distraction control, self-talk, and imagery are commonly practiced among these athletes. The repeatability of great performances appears to depend on the ability to manage distractions and avoid the development of an outcome orientation. While psychological differences may differentiate elite athletes from non-elite athletes, cognitive strategies may act as an enabler of better performances. Moreover, research distinguishing “great” elite athletes and “good” elite athletes, may provide good “elite” athletes with ability to make the leap of becoming a “great” elite athlete. To assist in the advancement of

knowledge of elite athletes, researchers should attend to gaps in the literature as suggested by Gould and Maynard (2009).

In conclusion, there are few athletes who are "great" and many who are "good." Athletes will ardently pursue exceptional performances, however, only a select few will ever amass greatness. The field of sports psychology has been diligent in its efforts to understand elite athletes and the psychological skills and cognitive strategies that can be employed to improve performances. While most studies have distinguished elite athletes from non-elite athletes, few studies have compared successful elite athletes to lesser performing elite athletes. At the Olympic level understanding these differences between these two groups of athletes can be impactful for coaches and athletes. So far, research has not explored how an athlete actually makes a shift to become a great athlete, after years of only being good. This curiosity is the foundation of this study.

Specifically, Collins began his exploratory study by conducting a search for good-to-great companies and comparisons, whereby performances were objectively measured and a transition point for a great performance was defined. Once companies were categorized (i.e., good-to-great companies and direct comparison companies) interviews were conducted to understand exactly what these good-to-great companies did to be successful. A similar approach can be applied in exploring good-to-great transitions in sports.

Overall, the development of an elite athlete is a long-term process. There is no doubt that motivation plays an intricate role in the achievement of success. Motivation is mediated by various factors including psychological skills and cognitive strategies, which can improve performances. In fact, understanding the components of peak performance is multivariate. However, Hardy et al. (1996) have provided a model, which encompasses the various salient

components. Considering this model, a basis for assessing the interaction of various factors involved in a shift in performances may be possible. Additionally, by attending to the various research gaps (i.e., distinguish between successful and less successful elite athletes, interaction of factors, theoretically driven study, non-normative performance assessment) a greater comprehension of elite athletes may be achieved. Ultimately, understanding how elite-athletes make the shift from good to great, will be insightful for coaches, athletes, and researchers interested in improving the performances.

CHAPTER THREE

Methods

Qualitative methods were used to explore the mental factors and psychosocial elements of good-to-great athletes, and to understand what, if anything, distinguishes them from athletes who fail to make this shift. The study explored two basic research questions: (a) for athletes who were able to make the shift from good-to-great, what mental factors and psychosocial-emotional changes, if any, do they associate with this transition?, and (b) are there mental factors and psychosocial-emotional changes that distinguish good-to-great athletes from comparison athletes?

Sample

Twelve international elite track and field athletes (4 females and 8 males) representing five different countries served as participants. These athletes had competed in their discipline at the world-class level between the years 1983 and 2011, in at least two Olympic Games with an average of three Olympic Games each (range 2 to 5). At the time of the interview, the average age of the athletes was 40 years old with a range of 27 to 50 years of age. These athletes had competed in their discipline from 10 to 26 years, with a mean of 16 years. Seven of the athletes participating in the study had retired from elite competition in their sport, while five athletes were still training and competing at the elite level. Athletes were selected based upon their historical performances and their availability.

To compare the performances of athletes, the IAAF Scoring Tables of Athletics, 2011 Revised Edition was used. The IAAF Scoring Tables of Athletics standardizes performances across the various disciplines in the sport of track and field (athletics) to allow for comparison of results between males and females, as well as different athletic events. While it is not

uncommon for some athletes to compete in more than one discipline (e.g., 100m, 200m, and 4 x 100m) only individual event and an athlete's best discipline results were considered in this study. Subjects were divided into two groups (good-to-great and direct comparison) based upon their performance results and placings at a major championship. Specifically, good-to-great athletes *(n* = 6*)* who were selected demonstrated a pattern of good performances punctuated by a transition point after which it shifted to great performances in a given discipline (e.g., 100m). A good performance was defined as having a top three performance average in their discipline in a given year which does not exceed 1,200 points on the IAAF Scoring Tables for Athletics for at least 3 years prior to the transition point. Twelve hundred points was chosen because few elite track and field athletes ever achieve this performance and it is accepted as a standard of performance excellence by coaches, athletes, and IAAF National Member Federations. Performances scoring 1,200 points or greater reflect a super-elite performance.

A great performance was defined as achieving a top three performance average in a given year of 1,200 points or greater on the IAAF Scoring Tables for Athletics while also medaling at an Indoor World Championship, Outdoor World Championship, or the Olympic Games after the transition point in a single discipline. Good-to-great athletes must have medaled at any of these major championships at least three times in their respective event, and sustained a top three performance average of 1,200 points or greater for at least 3 years within a 5 year period after the transition point (Table 2 and 3; Figure 1 and 2). The 5-year period accounted for possible time loss due to injury, personal problems or extenuating circumstances, while still demanding a demonstration of repeatability of high performance in a small period of time. The good to great pattern shift in these athletes were relative to their discipline and occurred no later than 2008 to ensure there was enough data to assess the sustainability of the transition. Between them the

good-to-great athletes had won, in total, five Olympic Games medals (3 gold, 1 silver, and 1 bronze), 13 World Outdoor Championship medals (4 gold, 6 silver, and 3 bronze), and five World Indoor Championship medals (2 gold, 2 silver and 1 bronze) in their individual events. Additionally, together they had set six world records in their career (Table 4). Due to the limited number of athletes fulfilling the requirements of good-to-great, an exception was granted to include Fran who actually had a performance average of 1198, 1215, and 1212 over 3 years yet, actually successfully achieved three medals at a major championship.

Direct comparison athletes (n = 6) demonstrated good performances in comparable events, on the international level at approximately the same age as the good-to great athletes. While they were all 2-time Olympians, never in their athletic career did their top three performances average in their best individual discipline exceed 1,200 points on the IAAF Scoring Tables for Athletics. The direct comparison athletes did not shift from good to great in their performances (Table 3 and 5; Figure 2 and 4).

Table 2

Good-to-Great Athletes' Performances IAAF Scores

	Year									
Participants	1	2	3	4	5	6	7	8	9	10
Adam	1066	1057	1072	1189	**1222**	**1239**	**1234**	**1217**	1103	1188
Bob	1148	1188	1186	1182	1191	1159	**1200**	**1230**	**1219**	**1224**
Chris	1135	1165	1174	1188	1176	**1203**	1190	1169	**1207**	**1240**
Dave	1074	1183	1185	1191	1154	**1274**	**1246**	**1227**	**1255**	**1207**
Eve	1126	1101	1185	1184	**1214**	**1211**	1199	**1204**	**1204**	1189
Fran	1005	1177	1127	1188	1173	1192	1165	1198	**1215**	**1212**
Average	1092	1145	1155	1187	1188	1213	1206	1207	1200	1210

Note. Good-to-great athletes' top three IAAF score averages for a given year, over a 10 year period.

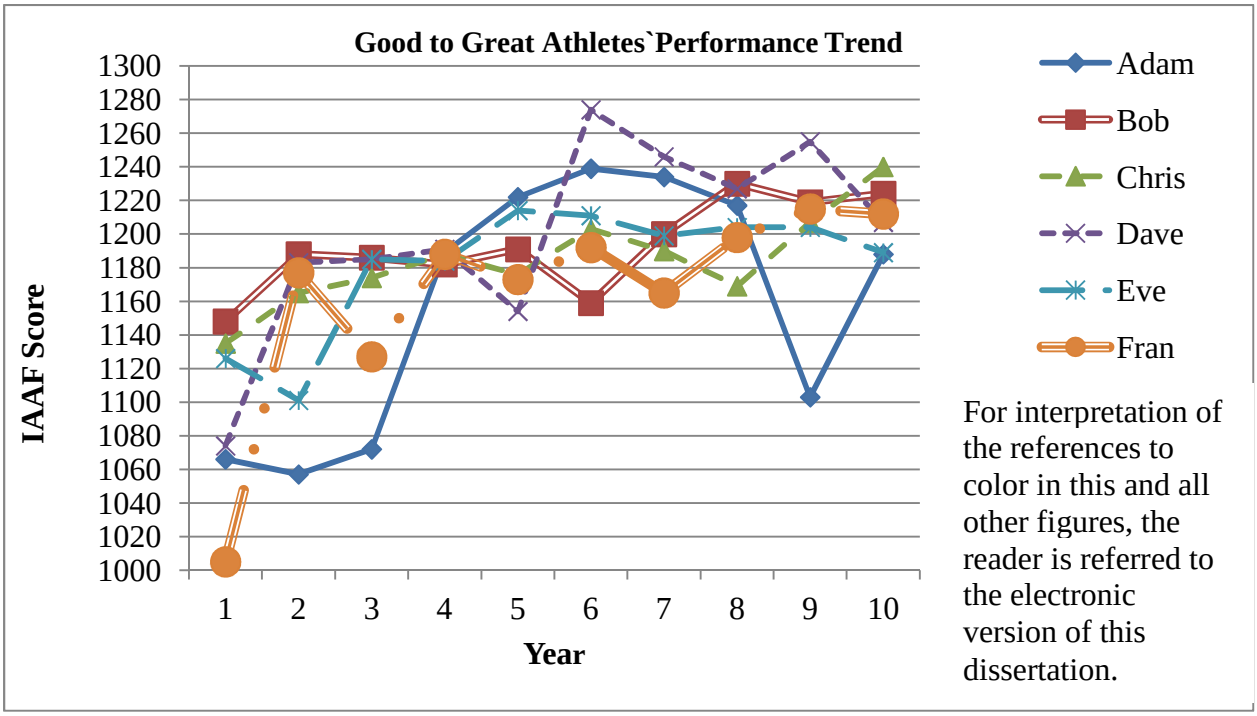

Figure 1. Performance trend of good-to-great athletes over a 10 year period.

Table 3

Direct Comparison Athletes' Performances IAAF Scores

	Year									
Participants	1	2	3	4	5	6	7	8	9	10
Greg	1115	1150	1168	1144	1143	1112	1117	1076	1098	1076
Heather	1132	1173	1185	1128	1184	1197	1140	1154	1151	1159
Ian	1153	1169	1194	1157	1135	1138	1147	1129	1117	1132
Jane	1137	1123	1134	1101	1117	1141	1106	1115	1103	1118
Kyle	984	1080	1048	1050	1104	1096	1051	997	1079	1050
Liam	1087	1083	1129	1182	1143	1095	1106	1173	1169	1127
Average	1101	1130	1143	1127	1138	1130	1111	1107	1120	1110

Note. Direct comparison athletes' top three IAAF Score averages for a given year, over a 10 year period.

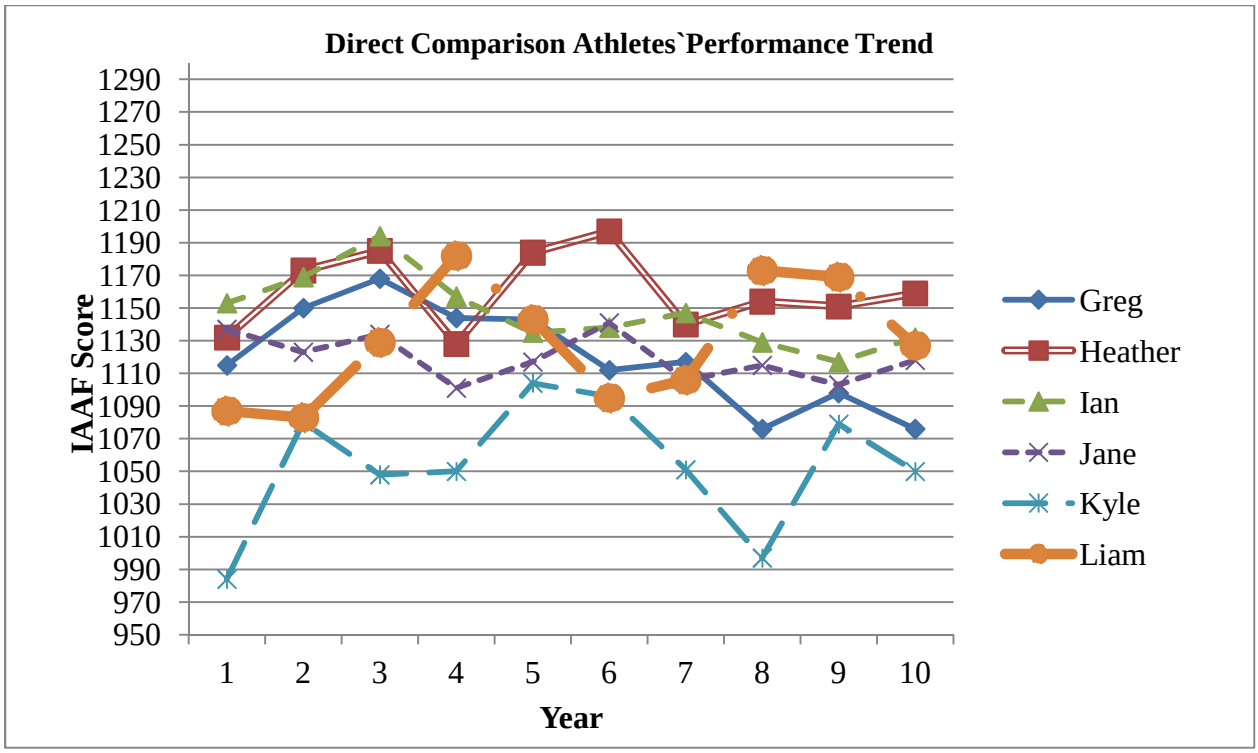

Figure 2. Performance trend of direct comparison athletes over a 10 year period.

Table 4.

Demographics of Good-to-Great and Direct Comparison Athletes

Athlete	Average age at interview	Average years in sport	Top IAAF average score	Average Olympic Games	Total Olympic Games medals	Total world championship medals	Total world records
Good-to-great athletes	42	15.5	1249	3	5 = 3 gold 1 silver 1 bronze	18 = 6 gold 7 silver 5 bronze	6
Direct comparison athletes	37	15.2	1171	3	0	0	0

*Athletes included in study competed in the sprints, hurdles and jumping events.

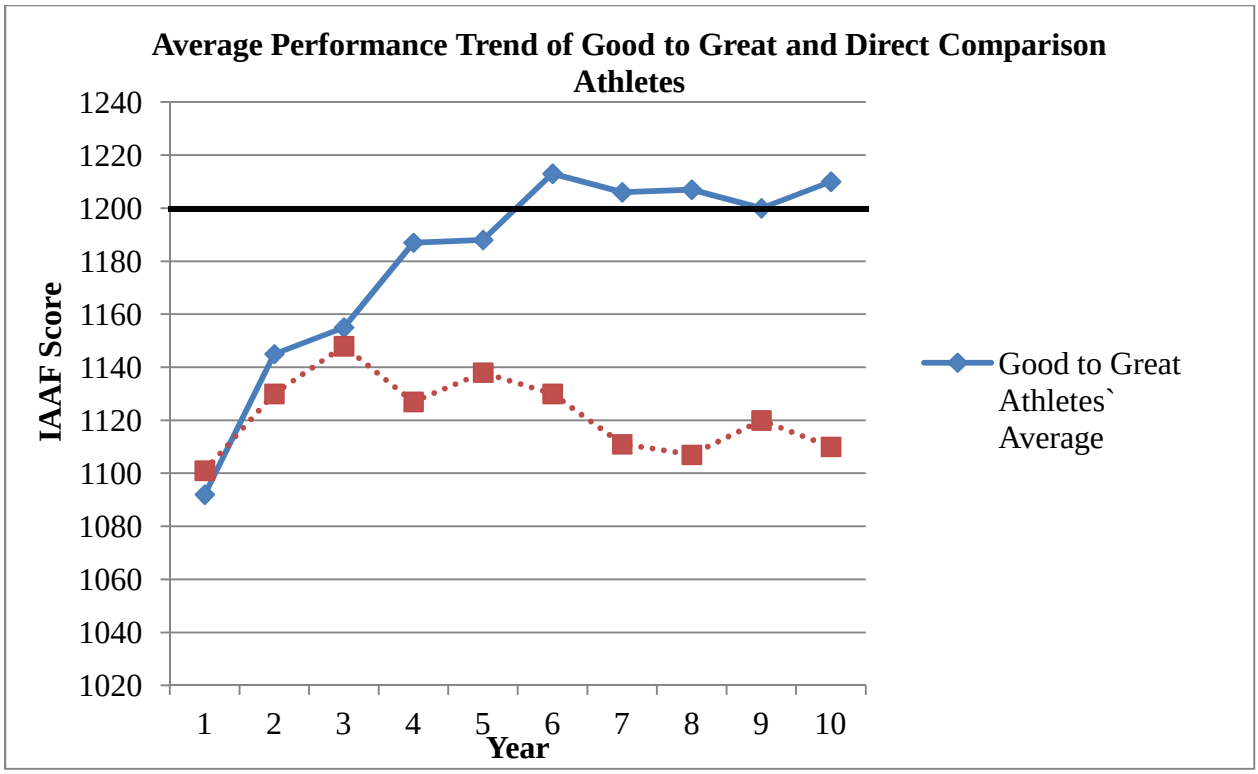

Figure 3. Comparison of good-to-great and direct comparison athletes performance trend over a 10 year period.

Instruments

Demographic Survey. Using the information provided by the IAAF Athlete's Biographies, and retrieved from all-athletics.com and tilastopaja.com a demographic survey was completed for all participants (Appendix A). The demographic survey served to assist in the recruiting and final selection of athletes for the study. The demographic survey contained questions addressing the participants' gender, nationality, discipline, major championships competed in, and top three performances over a 10 year period. Results were confirmed in the interview by the participants.

Good-to-Great Athlete Interview Guide. To understand the mental factors and psychosocial element changes of athletes who were able to make the shift from good to great an interview guide (Appendix C) was developed. The interview guide used in this study was semi-structured interview questions divided into three sections: (a) warm-up questions; (b) main questions; and (c) wrap-up questions. The warm-up questions were designed to establish a

rapport between the interviewee and the researcher, while also allowing the interviewee to get in the mindset of being interviewed. The warm-up questions consisted of general athletic questions and also provided data for the demographic survey. The main questions were structured in a funnel shaped interview, whereby questions were initially general regarding the concept of good to great and ended up specifically asking athletes why they were able to or unable to make the shift from good-to-great (Kvale & Brinkmann, 2009). Finally, the wrap-up allowed participants to elaborate on any of their responses or to add any points they felt were missed or that were important. Subjects were asked if they had any additional questions and were thanked for their participation in the study. Questions were adapted from the work of Gould et al. (2002) and Collins (2001). Specifically, the warm-up questions of the interview guide were a modified version of the background information section of Gould et al.'s (2002) interview guide. Likewise, the good-to-great transition era questions were a modified version of Collins' (2001, p. 239 -240) good-to-great chief executive officer interview questions. These questions were tailored to good-to-great athletes.

The interview guide was tested in a pilot study with three elite athletes and an experienced researcher. They were interviewed, taped, and asked to provide feedback with regards to the relevance of the questions asked, as well as, any additional suggestions they believed would help with the comprehensiveness of the interview.

Direct Comparison Athlete Interview Guide. To understand how the mental factors and psychosocial element changes of comparison athletes differ from good-to great athletes, an interview guide (Appendix D) was developed. The interview guide used in this study was similar to the Good-to-Great Athlete Interview Guide, including a semi-structured interview design and three sections (a) warm-up questions; (b) main questions; and (c) wrap-up questions,

as well. The warm-up and wrap-up questions were identical to the good-to-great athlete interview guide. The warm-up questions were designed to establish a rapport between the interviewee and the researcher, while also allowing the interviewee to get in the mindset of being interviewed. The warm-up questions consisted of general athletic questions and also provided data for the demographic survey. The main questions were structured in a funnel shaped interview, whereby questions were initially general regarding the concept of good to great and ended up specifically asking participants why some athletes were able to make the shift from good to great, and what if anything they believe they could have done different to improve their performances (Kvale & Brinkmann, 2009). Finally, the wrap-up allowed participants to elaborate on any of their responses or to add any points they felt were missed or that were important. Subjects were asked if they had any additional questions and were thanked for their participation in the study. Questions were adapted from the work of Gould et al. (2002) and Collins (2001). Specifically, the warm-up questions of the interview guide were a modified version of the background information section of Gould et al.'s (2002) interview guide. Likewise, the good-to-great transition era questions were a modified version of Collins' (2001, p. 239 -240) good-to-great chief executive officer interview questions. These questions were tailored to good-to-great athletes.

The interview guide was validated and tested in a pilot study with three elite athletes and an experienced qualitative researcher. They were interviewed, taped, and asked to provide feedback with regards to relevance of the questions asked, as well as, any additional suggestions they believed would help with the comprehensiveness of the interview.

Procedure

Permission to conduct the study was granted by the University's Institutional Review Board (see Appendix B). A search was first conducted to determine athletes competing between the years 1983 and 2011 that satisfied the criteria of good-to-great, or direct comparison. The search was based upon the researcher's own historical knowledge of track and field, discussions with other experts in the field, and consulting the IAAF. Athletes in the disciplines of 800m and greater were excluded in the search, as these events at major championship competitions are different from non-major championship competitions. For example, a pacer may be placed in an open competition to promote a fast time, however, at a major championship a pacer is not present and the race becomes more tactical. Additionally, athletes who did not speak English or whose location may be beyond the accessibility of this study were excluded. The search began by looking for athletes in the sprinting, hurdling, jumping, and throwing disciplines who had medaled at least three times, during the period of 1983 to 2011 in a single event, and who were still living. Based upon these results, the search was further narrowed to athletes who had achieved these results after having a period of only good performances, scoring below 1,200 points on the IAAF Scoring Table. The search resulted in an extremely limited group of athletes. In some cases, athletes had not competed for a year or two due to an injury or personal time demands. Performance results included the top three performance average for an athlete in a given year and must not have exceeded the allowable wind reading of 2.0 m/s. (The excess of +2.0 m/s has been determined to provide an advantage to performance in both the sprint and horizontal jump events, and as such are considered to be illegal performances according to the IAAF Competition Rules.) From this extensive search, a list of good-to-great athletes was

created and ranked according to performances. Based upon accessibility and availability, the top six athletes the interviewer was able to interview were selected to participate in the study.

Once the good-to-great athletes were determined, a search for six direct comparison athletes was conducted. For direct comparisons, athletes needed to have each competed in at least two Olympic Games during the same period as the good-to-great athletes in comparable events, yet failed to improve beyond 1,200 points on the IAAF scoring table and medal at a major championship. Based upon accessibility and availability six direct comparison athletes were selected to participate in the study. A list of athletes fulfilling the criteria for each group was then created. Based upon accessibility and availability of these athletes, 12 athletes were selected to participate in the study. Twelve athletes were determined to be the maximum number of subjects the researcher could realistically interview and conduct content analysis. Furthermore, the list of athletes qualifying as good-to-great athletes was a limited group size, whereby interviewing additional subjects reduced the anonymity of subjects and approached exhaustion of athletes. The primary researcher knew most of the athletes, which provided a rare accessibility to these athletes, and the ability to contact them directly to request their participation in the study. Once athletes agreed to participate in the study, a package containing a letter explaining the purpose of the study, procedure (e.g., recorded interview) and assurance of confidentiality, as well as a written consent form, was emailed or directly delivered to each subject (Appendix B)..

Upon receiving the signed consent athletes were contacted to arrange an in-depth qualitative interview. The researcher contacted each athlete by telephone to arrange a time and place for the interview. Due to the breadth of international athletes in this study, it was only possible to interview three athletes in person. The remaining nine interviews were conducted

over the telephone. All interviews began by having the subjects confirm their agreement to participate in the study. Subjects were reminded that their responses would be confidential and that the interview would be recorded. Subjects were also informed that if at any point they wished to end the interview they could. The interview followed the semi-structured interview guide, intended to reduce partiality and normalize all interviews. Subjects were probed, encouraged to expand upon their responses, provide as much detail as possible, and object when necessary. Interviews ranged from 50 to 90 min in length. At the completion of each interview the interviewee wrote a memo summarizing the interview and making note of anything that might have occurred or stood out from the participant during the interview. The interviews of the participants and memos were recorded and transcribed verbatim by the primary researcher. All initial transcripts were read and re-read correcting for formatting and accuracy. The final transcripts were emailed to participants for member checking. Subjects were requested to make any additions or corrections to the transcript accordingly. To protect the identity of each participant pseudonyms were used.

Interviewer

Interviews of all subjects were conducted by the principal researcher of this study and recorded with an Olympus WS-700M recorder. Following the procedure of Gould et al. (2002), interviews were conducted after the researcher reviewed the demographic survey in detail of the subject. Training for the interviews relied on previous course work, including a qualitative research class specific to the design of this study, and reading various qualitative interviewing technique literatures (e.g., Krathwohl, 1993; Kvale & Brinkman, 2009; Lincoln & Guba, 1985; Miles & Huberman, 1994; Patton, 1987; Tesch, 1990; Weiss, 1994). Additionally, several pilot interviews were conducted including two training sessions with two well experienced qualitative

researchers. The principal researcher was evaluated and provided feedback to ensure that the researcher used appropriate and effective interviewing techniques. Possible problems that might occur from knowing the subjects (e.g., adequacy of the respondent's account, probing, biases, phrasing the question) were also addressed.

Data Analysis

The data were analyzed following the recommended procedures by Miles and Huberman (1994). Specifically, data were reduced by focusing, simplifying, and organizing it in a meaningful way. Using a grounded theory approach, transcripts were coded in an exploratory manner, whereby the codes emerged from the data inductively. Passages coded were constantly compared with previous sections coded checking for any new codes that had been developed and were also applicable to the data, which had been already coded (Strauss & Corbin, 1990). The software Atlast.ti v.6 was used for coding and data analysis.

Following Ryan and Bernard's (2003) suggestions, transcripts were coded by looking for themes such as in word repetitions, key words, missing data, metaphors and analogies, similarities and differences, transitions, and connector words used. Coded data were grouped into categories and organized deductively according to study questions and placed into a case-ordered descriptive matrix. Such a meta-matrix contains codes from each subject's transcript, but the cases are ordered according to the interview questions (Miles & Huberman, 1994). Using the meta-matrix, data were further grouped with their corresponding research question. For example, questions designed to illicit an answer to the larger researcher question of, "*What are the mental factors and psychosocial element changes that allow an athlete to go from good to great?"* were organized under this umbrella question. To ensure reliability of the coding scheme an experienced qualitative researcher reviewed the data independently. Transcripts were

reviewed and coding schemes were compared. Any discrepancies of codes were discussed and resolved, resulting in either a change in a code, deletion, or addition.

Raw data responses (e.g., quotes and phrases representing a meaningful point) and codes were organized into a sub-theme category, which was then grouped into a general dimension umbrella. Descriptive statistics were used to evaluate the athletic development (e.g., sports played growing up, age began discipline, and training changes) of the participants.

Recognition of Potential Biases

In general terms, the quality of research is anchored in its ability to be reliable and valid. Reliability refers to the trustworthiness and dependability of research findings, while validity is the "truth, the correctness, and the strength of a statement" (Kvale & Brinkmann, 2009, p. 246). Trustworthiness in qualitative analysis is a means of addressing reliability and validity. Specifically, Lincoln and Guba (1989) posit trustworthiness involves four dimensions: (a) credibility; (b) transferability; (c) dependability; (d) confirmability (objectivity). Credibility is the degree to which the data are truthful and accurately recorded and can be ensured through various ways including, adopting well established research methods, triangulation, and objectivity. Transferability "is concerned with the extent to which the findings of one study can be applied to other situations" (Merriam, 2009, p. 223). By providing a detailed account in one's methodology, transferability can be attended to. Research that is dependable demonstrates consistency and the ability to be repeated; while confirmability requires objectivity to the findings of the study. Similar to credibility, dependability and confirmability can be revealed in various manners, including audits, triangulation, and reflexivity.

The primary researcher is an Olympian track and field athlete, which provided her the opportunity to have access to interview such a selective sample of participants. However, given

her athletic role and relationship with some of the subjects, it also put the study at risk for potential biases. This study sought to establish trustworthiness in its findings. To control for potential interviewer biases, six strategies were employed: (a) interview guides (b) pilot study (c) inductive analysis (d) objectivity (e) member-checking; (f) triangulation of sources; and (g) reflexivity.

The interview guides ensured that questions were standardized and asked in the same sequential order. Furthermore, as stated, the interview guides (e.g., warm-up questions, funnel approach, wrap up questions) and data analysis used in this study was adopted from well-established research methods with similar samples (Gould et al., 2002; Greenleaf, et al., 2001; Kriener-Phillips & Orlick 1993; Miles & Huberman, 1994; Orlick & Partington, 1988). This demonstrates a provision for stability and dependability of the results. Secondly, the initial pilot studies also served as training, where the athletes interviewed were encouraged to provide feedback regarding the interviewer's style and whether they felt led with some partiality. All pilot interviewees reported positively on the style of the interviewer and the feeling of being open to express themselves during the interview. Similarly, subjects interviewed in the study demonstrated objectivity, by asserting themselves to ensure the interviewer clearly understood their points. For example, " No, no. I never had goals in practice," or "No, no, no. No, forget that!" or, "But, I wasn't and that's my point. I thought- that's what I'm trying to tell you" was stated by participants during the interview. Likewise, demonstrating conformability, none of the transcribed interviews sent to all the participants for review were found to have any correction in the representation of their accounts. Credibility and dependability were also established by the triangulation of sources regarding athletic development data. Data were collected from the athletes in the interview, the IAAF's Athlete Biographies, as well as from two respected and

dedicated websites to track and field (athletics) – www.all-athetics.com and www.tilastopja.com. Finally, the interviewer strived for "objectivity about subjectivity" by practicing reflexive objectivity, as suggested by Kvale and Brinkman (2009). The interviewer was reflexive about presuppositions and also used audits from an external experienced qualitative researcher to ensure data analysis was objective.

CHAPTER FOUR

Results

Results of the good-to-great and direct comparison athlete interview responses are presented in two sections. The first section addresses the first research question: For athletes who were able to make the shift from good-to-great, what mental factors and psychosocial-emotional changes, if any, do they associate with this transition? This research question was organized into two parts: (1) factors associated with the shift from good to great, and (2) factors associated with sustaining the shift from good to great. The second section explores the second research question: Are there mental factors and psychosocial-emotional changes that distinguish good-to-great athletes from comparison athletes? This research question was organized into three parts: (1) athletic development and training differences, (2) strategies implemented to improve performances, and (3) factors that could have improved performances in direct comparison athletes. This chapter includes a presentation and explanation of each section, umbrella themes, sub-themes, raw data themes, and quotes from individual athletes. Raw data themes represent the content and meaning of coded participants' responses and statements. The sub-theme reflects the grouping of shared raw data themes, and the umbrella theme is the overarching leitmotif raw data themes and sub-themes share.

Factors Associated with Good to Great Transition

Determining what the mental factors and psychosocial emotional changes were that allowed an athlete to go from good to great, were revealed in two parts. First, good-to-great athletes were asked to identify and explain the factors that allowed them to make a shift form good to great. Next, they were asked to identify the factors that allowed them to sustain this shift over many years.

Factors Associated with the Shift from Good to Great

To understand how athletes were able to change their trajectory of good performances to become great, good-to-great athletes were asked: (a) What do you see as the top five factors that contributed to or caused the upward shift in your performance; and (b) Tell me some more about the top two or three factors you mentioned. Why were these factors important? Participant responses revealed five umbrella themes: (a) performance enhancement skills and characteristics, (b) support and resources, (c) skill mastery and quality of training, (d) motivational issues and orientation, and (e) accumulated training time (Figure 4 and Table 5). Overall, the majority of the good-to-great athletes referred to each umbrella theme, with all six athletes citing support and resources, five athletes citing performance enhancement skills and characteristics, support and resources, and motivational issues, and three athletes citing accumulated training time.

Sample representative quotation	Umbrella theme	Sub-theme	Raw data themes
"We covered almost everything…Focus, concentration, visualization, all kinds of things we worked on… imagery… we did a lot of things. It was just so intense" (Eve, ln 586-591, p.15).	Performance enhancement skills and characteristics (34)	Psychological skills (14)	Able to focus (7) Psychological skills training (3) Mental acuity (2) Perform under pressure (2)
		Self-regulation (11)	Good work ethic (4) Discipline (3) Balance in life & sport (2) Hard worker (2)
			Sport confidence (9)
You know certainly having a fantastic mentor, this guy [Coach] was really crucial. Someone, who really walked the path with me. I didn't have to develop on my own… (Dave, ln 986-988, p.24)	Support and resources (33)	Support (20)	Coach (8) Medical Staff (5) Sports psychologist (3) Teammate(s)/Training partner (s) (2) Family (2)
		Resources (13)	Environment (4) Finance/Invest in training (4) Nutrition (3) Facility (2)

Figure 4. Themes for factors influencing shift from good to great. The number of times each theme was referenced is represented by parentheses.

Figure 4 (cont'd)

Sample representative quotation	Umbrella theme	Sub-theme	Raw data themes
And I kind of took it seriously… Technically… like mastery… trying to master the skill, honing it. (Adam, ln 586-592, p. 15)	Skill mastery and quality of training (24)	Skill mastery (18)	Mastery of technique (8) Improvement in training regime (7) Proprioception (3)
		Student of sport (4)	Study other athletes (2) Analysis of training (2)
			Training knowledge (2)
You've got to have a passion or whatever you want to call it, it may be an overused word. You've got to love what you do. (Bob, ln1168-1169, p.28)	Motivational issues and orientation (17)		Spiritual belief (8)
		Goal dedication (5)	Resiliency (3) Commitment (Seriousness) (2)
			Passion (4)
I think it was the accumulation of training over the years. I had done nothing until I was 21. I think part of the results of XXXX, wasn't because of anything I had done. I had put the work in over a period of 6, 7 years. (Dave, ln 446-448, p.12)	Accumulated training time (6)		Experience developed (4) Gradual long-term progression (2)

Table 5

Factors Influencing Shift from Good to Great

Umbrella theme	Number of themes		Number of good-to-great athletes (N = 6)	
Performance enhancement skills and characteristics	34	*30%*	5	83%
Psychological skills	14	*10%*	3	50%
Self-regulation	11	*9%*	4	67%
Sport confidence	9	*8%*	3	50%
Support and resources	33	*29%*	6	100%
Support	20	*18%*	6	100%
Resources	13	*11%*	4	67%
Skill mastery and quality of training	24	*21%*	5	83%
Skill mastery	18	*16%*	5	83%
Student of sport	4	*4%*	2	33%
Training knowledge	2	*2%*	1	17%
Motivational issues and orientation	17	*15%*	5	83%
Spiritual belief	8	*7%*	2	33%
Goal dedication	5	*4%*	3	50%
Passion	4	*4%*	2	33%
Accumulated Training Time	6	*5%*	3	50%
Experience developed	4	*4%*	2	33%
Gradual long-term progression	2	*2%*	1	17%
TOTAL	114			

Performance enhancement skills and characteristics. Comprised of nine raw data themes, and two sub-themes, five of the six participants' responses cited the umbrella theme, performance enhancement skills and characteristics (34%). The first sub-theme, psychological skills, revealed the athletes who had engaged in psychological skills training and who were able to focus, exude mental acuity, and perform under pressure.

One athlete spoke of how engaging in psychological skills training after experiencing a serious injury improved her performances. She said, "We covered almost everything…Focus, concentration, visualization, all kinds of things we worked on… imagery… we did a lot of things. It was just so intense" (Eve, ln 586-591, p.15).

Similarly, three other athletes discussed how their ability to focus was a psychological skill which facilitated their transition from good to great. Adam explained that just before experiencing the shift in his performances he changed his attention. He affirms he was, "More focused, more disciplined" (Adam, ln 590, p.15).

Another athlete further explained why being focused was important: "You have to stay focused and driven and have the right mindset in your own lane because there are so many distractions out there" (Fran, ln 347-349, p.10). Focus was reasoned to provide structure and controlled distraction for these athletes.

Mental acuity, another psychological skill, was also recognized by two athletes as providing a competitive advantage for them. For example one athlete said, "I think I'm mentally tougher and I've brought the psychological aspects into my competition (Eve, ln 448-449, p.12). Furthermore, this athlete also identified being able to perform under pressure as an additional contributing factor in her shift in performances:

> I think I'm a more mental athlete now too. I use to break under pressure. I use to fear competition and that kind of stuff. Now I'm more competitive. I can concentrate more now. I'm more in control of my competition. And as the years progress I get better and it makes me a better competitor. (Eve, ln 429-432, p.12)

Self-regulation was found to be a second sub-theme of the umbrella theme performance enhanced skills and characteristics, whereby athletes discussed being disciplined, maintaining a balance in life and sport, having a good work ethic, and being a hard worker as transitional factors. These athletes regulated their daily actions and efforts. For example, one athlete compared the need for balance in his life as a room that was clutter free. This allowed him to be aware of what needed to be done to improve his performances:

> Well, I think the first one is probably balance in my life. It's all balance because I think that's one of the things I've always known (and [coach] and I use to always talk about this a bit). I kind of live in a museum in my head and also in my physicality, and one of the things I've always done, if you have everything and it has its place it means that you have a lot more room to absorb information as well as… it's almost like buying more things. If you live in an empty place… If you live in an empty apartment then you can actually walk in and go "Okay, this would fit here. This would fit here. And that would fit there." So, I kind of did that with my mind. From relationships- I mean I had a child from XXXX, so I said I have to support my child, but I have to focus on this; and then my parents, [coach], my staff and my team - so that's the first thing I had to do. And [coach] with that allowed me to be completely and totally focused. Completely and totally focused and to be disciplined… That was the balance. The right team- so there's a bunch of little things, little factors. (Adam , ln 616-630, p.16)

By minimizing possible distractions and managing his personal life, this athlete practiced self-regulation, allowing him to focus better and make decisions to allow him to perform optimally. Enabled through the creation of balance, this athlete also stated, becoming more disciplined as a contributing transition factor (Adam , ln 584, p.15 and ln 629, p.16).

Another athlete analogized the results that came from a good work ethic as making bank deposits, which would later yield a high return on investment:

> The work ethics, I could say and probably you remember, [coach] had this saying "Its money in the bank." It's money you are putting in the bank when these guys were like, "Oh, shit that's hard, that's this, that's that, that's tough." [Coach] was like, "That's money you're putting in the bank! The more money you put in the bank, at the end you're going to go to the bank and you're going to have a big cash." But, if you're not ready to put that work that sacrifice, or call it whatever you want, because it's hard, because you know you're going to have cramp and everything, forget it. You're not making any investment. (Chris, ln 540-547, p.14)

While hard work may be a quality shared amongst elite athletes, the good-to-great athletes believed it further distinguished them. Two athletes referenced the importance of hard work, and how it has allowed them to separate themselves from their competitors and be great. For example, one athlete stated,

> My type of training is very good. It's very hard, but it has helped me significantly. We do a lot of over distance training and I think that's helped me to be a stronger athlete. My acceleration is usually my strength, and I know that comes from my training. When I pull away from the field after hurdle six, I know that's my 300 [m] and 400 [m] which a lot of athletes are not willing to run. All the sprint hurdlers, tell them to run a 400 [m] or

> a 300 [m] and they're not going to do it. But, I do it because I know that this is what is going to give me an edge… And I think that's what separates our program from a lot, because as I said not a lot of people are willing to do it, and because you know that if you do it, it will give you that edge you just brace yourself and do that…(Eve, ln 561-569, p.15)

Finally, sport confidence was identified as a raw data theme also grouped under the umbrella theme of performance enhancement skills and characteristics. Sport confidence was actually the most quoted raw data theme by good-to-great athletes as a transitional factor. One athlete explained the significance of believing in one's ability as a means of overcoming obstacles, and a source of self-support:

> It was a reality for me. I mean I was good… and I'm going through the rounds and I know this is something I can do. And you don't always have everyone behind you backing you up 110%, but as long as the individual believes in themselves, and they think it's possible, especially with hurdles, anything is possible. There's 10 hurdles in the way, *anything* can happen in that race, and you have to keep that in mind. (Fran, ln 343-347, p.10)

Comparatively, another athlete described sport confidence as a fundamental element to control distraction, minimizing the possibility of being intimidated by competitors:

> Because let's say I'm on the starting line, seeing all the times that they're running. You see all the crowd, the camera and everything, if you don't have confidence in yourself that you're going to do it, you're going to do the show, then you're going to crack. You're going to choke. There's no way. You're not going to go through it. And

> especially in the 100 [m], you know all these guys try to intimidate you and everything, I mean forget it. Forget it. There's no way. (Chris, ln 521-526, p.14)

Support and Resources. The second most cited umbrella theme by participants' responses was support and resources (29%), with nine raw data themes grouped into either support or resources as a sub-theme. All of the good-to-great athletes referenced support and resources as a factor that influenced their shift from good to great.

For the first sub-theme, the coach, a sport psychologist, teammates, family, and medical staff were all cited as sources of support. In particular, the coach's support was cited by all good-to-great athletes. These athletes mentioned the actions of their coach allowed them to be focused, disciplined, and physically prepared, and to implement various psychological skills they learned. For example, one athlete described her coach's support as being both physical and mental. Her coach provided optimal physical training, while also instilling sport confidence and controlling distractions:

> Coaching is definitely [an important factor], well [it] plays [a] physical and mental [role]. Someone can help you mentally [be] strong and believe in yourself. You couldn't get through certain levels, with certain things, and certain times when people have said things. I'm pretty good at just letting things go in one ear and out the other when it comes to drama, because I don't like drama. I just wipe that away. And [Coach] has just been a great help in that area when it comes to just focusing on the task at hand… Basically coaching helps you out physically and mentally. Mentally, when it comes to all the side things which comes along with sports; but physically, being physically ready to be healthy, ready to run, and compete, and put myself on that world levels. It's what this whole things is about, going from good to great. (Fran, ln 644-653, p.17)

Similarly, another athlete likened the significance of their teammates to that of a coach:

> And knowledge that not only [Coach] had but, [Athlete] and even the other athletes. Because we used to, basically, coach each other at the same. Because we would be watching each other… it could be hurdles or be run like sometimes [Coach] is not there and we just wait ... (Bob, ln 846-849, p.21)

For this athlete, in the absence of his coach, his teammate was able to provide similar technical knowledge and support.

To improve her mental game, Eve sought the help of a sport psychologist and found him to be instrumental in her improvements upon returning from an injury. In fact, her performances after her surgery superseded her performances prior to her injury:

> Yah, and the mental-. The year before last I was lucky enough, I worked with a professional sports psychologist.… He has worked with a lot of golfers and tennis players and that kind of stuff. So, after coming back from my surgery on this leg, my coach thought I needed help and it has helped me significantly. My training has improved since then and it has also helped with my competition. (Eve, ln 574-582, p.15)

Interestingly, despite mentioning the importance of a sport psychologist in her transition from good to great, this athlete was no longer seeing him, and her performances had also begun to decline. She lamented,

> I'm probably going to call him if I have the energy to talk to him after this, because I need him like right now. But, it was kind of expensive. You know those kinds of people cost a lot of money. (Eve, ln 595-597)

For another athlete, the support of her husband and family was an important factor in her transition from good to great:

I mean having my husband there to support me has been huge. I mean that too, when you go away to track meets and you have somebody, the minute you get on Skype or calling, "Why haven't you called me? I've been worried about you!" (Fran, ln 658-660, p.17)

Her husband provided a sense of emotional support and stability while she was travelling abroad and competing. When possible he would even travel with her.

Likewise, three athletes mentioned the availability of medical staff support, as a critical element in their improvement. A medical team afforded these athletes the ability to stay healthy and avoid injury. For example, one athlete explained,

I use to get a lot of injuries, because then it was a small group and I run the hurdles, so you know we don't get a lot of money, so I'd have injuries and I would just run with them. Nowadays, it is easier for me because we have a lot more physios and medical team to help keep me injury free, even though I'm older. Because I can take care of these injuries, I can still go and things don't accumulate anymore… (Eve, ln 418-422, p.12)

Resources was the second sub-theme identified by four athletes (67%), whereby environment, nutrition, facilities, and investing in training were raw data themes. One athlete had changed his training location, and he acknowledged the environment as the initial factor influencing his shift in performance. He said, "I'd say Number one, environment. Actually, optimal training environment over there [country]" (Bob, ln 508, p.14). He defined the environment as the overarching surrounding which sets the stage for all other transitional factors:

Now that we've talked about it, everything revolves around the environment you're in, like the coach, your training partners. You can break all this down and get five out of it. They're all the same thing. Like your support staff, your massage, like anything that's there which is your environment. (Bob, ln 843-846, p. 21)

Nutrition was also identified by two athletes as an influential factor, allowing them to maintain an ideal body weight and provide the necessary nutrients for optimal performances. For example:

> Well, nutritionally if you don't have the right supplements, you don't have the protein, you don't have the stuff to help your body recover from hard workouts, then you are just breaking yourself down. But, if you are healthy you're able to withstand and hopefully fight off future injuries by being smart, and eating, and taking care of yourself health wise. (Fran, ln 638-642, p.16-17)

This athlete also pointed out the importance of a facility: "But, at the same time if you don't have a good facility, where are you going to train? That kind of leaves you stuck also" (Fran, ln 570-572, p. 15). While facility may seem like an obvious factor, this athlete felt it was necessary to make that distinction and recognize it as a top transitional factor. In fact, Fran had also relocated to what she believed was a more optimal training center.

Finally the ability to meet the financial demands associated with high performance training was also identified by three athletes. One athlete described it as investing in his training:

> Well, in my case I could say technique, of course, work ethic, invest in my training. I mean to me when you get to that level its sport but at the same time it's business. I mean of course to have longevity I knew I had to invest in my massage, chiropractor and all that stuff. Very expensive. Most of the time I was travelling and doing those crazy things I had my team with me. And this is not cheap. And I was like if I want to survive all this training and stuff, I need to have a team, and that's why I think I had the good longevity and make the difference in the performance. I would say it was those three factors. (Chris, ln 482-487, p.13)

By having the financial means in place, this athlete was able to afford the costs associated with travel, training location, and having a coach and medical staff able to travel with him to competition, all of which placed him in a better position to perform his best. The financial cost of high performance was also outlined by another athlete, who acknowledged going into debt as he made efforts to improve his performances:

> I went into debt in the Olympic year because [training partner] expected me to travel everywhere. I don't know where I got the money because I wasn't making any money in track. I went a $100,000 into debt because I had to go travel with them, I had to support myself. But, whatever I had to do, I was going to do it. And I'll find a way later. (Bob, ln 1069-1073)

Skill Mastery and Quality of Training. The third umbrella theme that was cited by a large majority of the good-to-great athletes was skill mastery and quality of training (21%). Five athletes referenced the sub-themes skill mastery, student of sport, and training knowledge as assisting them in making their shift from good to great. Specifically, for the first sub-theme, skill mastery, good-to-great athletes identified the raw data themes of improvement in training regimen, mastery of technique, and proprioception as contributing factors. Adam explained his improvement in training by stating, "And I kind of took it seriously… Technically… like mastery… trying to master the skill, honing it" (Adam, ln 586-592, p. 15). Another athlete further explained this improvement as a focus on quality. He stated, "I think change in training regime[n], with an emphasis on more quality, so I think that was it" (Dave, ln 445-446, p.12). Likewise, a third athlete described how improving her training regimen allowed her to physically develop as an athlete:

> By just changing my diet and being exposed to a more concentrated kind of training, I think that help me to make the transition. And as I progressed I got stronger, because remember I had never been exposed to any kind of hard training before. I got stronger each year, and I get technically more sound. (Eve, ln 394-398, p.11)

In addition to improving their training regimen, athletes also mentioned mastering their technique. One athlete described breaking down his race into segments as he attempted to master it:

> Putting together races too. Putting together races because there's always three segments. So, trying to put the perfect race together, that's really the focus. You know physically pushing my body in practice. (Adam, ln 600-602, p16)

This athlete also mentioned the relevance of developing proprioception to assist in the acquisition of mastery (Adam, ln 590, p.15).

In addition to skill mastery, becoming a student of their sport also proved to be beneficial for good-to-great athletes. Studying other athletes and analysis of training allowed athletes to develop sport intelligence and facilitate their improvement in performances. Dave described how he studied and compared himself to other athletes, which led him to eventually ratify his technique. This resulted in a drastic improvement in his performances:

> I just spent the time watching video over the course of what was a great depression winter for me, because it didn't matter if I was a 100 percent fit, and looking at different videos of- I always modeled myself off of [Athlete] because he was the world number one XXX when I was growing up. I think he had that Eastern Bloc style. Very powerful. And I thought no, I'm not actually that kind of athlete, I'm more like [Athlete]. Much more speed based. I looked at the way he xxxx and he used the double arm shift through the

> phases, and I thought you know what I'll try that. That might work better. And it had a huge impact. (Dave, ln 510-517, p.14)

Similar to being a student of the sport, training knowledge was identified as a distinct transitional factor by one athlete. He described it as the coach's and training partners' understanding of all of the various components involved in training (i.e., nutrition, training, and environment). This athlete had made his shift in performance after moving to a new country, and he described training knowledge as a pivotal factor in this quote, as he compared his previous training arrangement:

> Number 2, knowledge of training probably. If I look at what we did over there and how I was coached and what we did here, these guys, it's like kindergarten here compared to how I was training over there…. (Bob, ln 509-511, p. 14)

Motivational Issues and Orientation. Another highly cited umbrella theme was motivational issues and orientation (15%). Made up of three sub-themes, five good-to-great athletes mentioned goal dedication, spiritual belief, and passion as factors contributing to their transition. Goal dedication was a sub-theme comprised of the raw data themes resiliency and commitment. One athlete described her various setbacks and ability to bounce back as a part of her journey to move from good to great. She stated,

> I mean why did I lose my right ovary and why don't I have a contract? Well, you know you work harder, keep pushing and striving and it gets better. It hasn't been easy for me… But once you get through it, then you're good. (Fran, ln 602-609, p.16)

While her setbacks were challenging at times, her ability to be resilient allowed her to move forward and be successful.

Similarly, commitment and taking things seriously was also identified as a contributing transitional factor. For example, Adam mentioned that in the beginning of his career he was inconsistent with his training and not very committed. However, prior to making his transition he made some changes. He explained,

> I focused on my body. I focused on the small technical aspects of what the race is. I studied people. I studied some of the guys before me, somewhat. And I kind of took it seriously. (Adam, ln 584-486, p.15)

Adam began to demonstrate dedication towards his training and performance pursuits.

Spiritual belief was another salient motivational factor acknowledged by two athletes. For these athletes it appeared their spiritual belief provided motivation and meaning to their athletic pursuit. Dave described it as this:

> I think… Yah, as I said earlier on, I think my faith undergirded everything that I did. I was first and foremost a Christian, not an athlete. So, yah it was the reason why I did what I did. It was a big part of my motivation. So, yah I would add faith to that... Yah, I would add faith to it. (Dave, ln 472-476, p.13)

Likewise, for Fran spiritual faith provided guidance, direction and a sense of purpose:

> For me, I know everything is just God willing. There is a reason everything happens and as long as I let Him lead the way, basically for me, then I know everything happens for a reason. (Fran, ln 523-525, p.14)

Passion was found to be a raw data theme mentioned by one athlete. He described passion as a necessary ingredient that ensured success. With zeal, he said,

> You definitely have to have the heart. If you don't have the heart, there's no point in doing something. Because you can have the top line of mondo, you could have the best

> spikes and the latest gear out there, but if you don't care what you're doing. If you have no heart and no drive, where does that leave you? It just leaves you empty and just doing something because… There's no heart, no drive behind it, there's no motivation. It's "I'm just doing this because well my parents want me to do it, or I'm just going to keep doing this because I've been doing this for so long, I don't know what else to do." (Fran, ln 563-570, p.15)

For this athlete, passion was a source of motivation and needed to be intrinsically derived.

Accumulated Training Time. The final umbrella theme identified as a transitional factor for three good-to-great athletes was accumulated training time (5%). The transition to super-elite performances was identified as one that occurred gradually over a long-term progression and was facilitated by their experiences. Specifically, when reflecting on the top five factors that influenced their incredible improvement in performances, one athlete stated,

> The changes, the changes were technique and training regime. I think those were the two things that changed, but you'd also factor in accumulation of training over numerous years as an important factor. It didn't just suddenly happen. It was the result of consistent training over a period of time. (Dave, ln 502-505, p.14)

Likewise, another athlete described her experiences as a National Collegiate Athletic Association (NCAA) student-athlete as assisting her development to becoming a super-elite athlete. She said,

> That definitely helped being in the NCAA circuit I guess you could say because I had the consistent rounds of meets, and I had the competition. You had people around every weekend pushing you and being use to the competition. Being use to the atmosphere and having that. And as you go over to Europe, obviously the stadium gets bigger and the

> crowds get bigger, and basically you are coming into your own and being comfortable around your setting. So, NCAA definitely, definitely helped me out and I would advise anybody to take advantage of that in college if you can. Because it definitely helped me and I wouldn't be the athlete I am if it wasn't for all those experiences, and all those meets that led me up to Beijing [Olympic Games]. (Fran, ln 364-372, p.10

Similarly, another good-to-great athlete further explained how experience comes with time and provides a gateway to better performances. Eve explained, "And as the years progresses, I think I am competing better because I am experienced. I learn so much as years go by" (Eve, ln 428-429, p.12). While the shift from good-to-great may appear dramatic, for these athletes it was a gradual progression over time.

Factors Associated with Sustaining the Shift from Good to Great

To understand how these athletes were able to sustain their super-elite performances over a minimum of 3 years in a 5-year period, the good-to-great athletes were asked to identify the factors they believed were influential. Specifically, athletes were asked to explain "What were the primary factors in the lasting of the transition far beyond the first few years?" The responses revealed 18 raw data themes, of which 13 raw data themes were grouped into four sub-themes, and the umbrella themes of motivational issues and orientation, performance enhancement skills and characteristics, and accumulated training time (Figure 5 and Table 6). These umbrella themes also made up three of the five umbrella themes identified as transitional factors in the shift from good to great.

Sample representative quotation	Umbrella Theme	Sub-Theme	Raw Data Themes
Yah. That was my thing. To me it's like the goal you achieve it. Great. You do your party, you do your thing, and then what's next. I remember the first time I won the World Championships in 'XX, I was, "Okay great, I got my medal and everything," and I remember we did all the interviews and everything, and almost at the end of the interview I was thinking already about outdoors. (Chris, ln 1060-1064, p.26)	Motivational issues and orientation (25)	Drive (10)	Goal oriented (3) Strive to be your best (4) Driven to prove others wrong (3)
		Passion (8)	Passion/Insatiable pursuit for excellence (6) Maintain motivation (2)
		Goal dedication (7)	Commitment (4) Determination (2) Resiliency (1)
I-- Number 1, I don't know anybody who works as hard as me. I know a lot of people work hard and I'm sure they work harder than me. But, I don't see it. Work ethic is my number one thing. (Bob, ln 1001-1003, p.24)	Performance enhancement skills and characteristics (16)	Self-regulation (11)	Good work ethic (4) Discipline/Create structure (3) Take care of self (2) Balance in life & sport (1) Know oneself (1)
			Talent/Ability/Genetics (2) Focused (1) Positive (1) Belief in self (1)
I'd say the transition was just a part of the maturing process as an athlete because I had come to it relatively late. So, it was just a case of building a foundation. And once it was built, I reached a certain level and that was my level. (Dave, ln 934-936, p.23)	Accumulated training time (1)		Accumulated training time (1)

Figure 5. Themes for factors sustaining shift from good to great. The number of times each theme was referenced is represented by parentheses.

Table 6

Factors Sustaining Shift from Good to Great

Umbrella theme	Number of themes		Number of good-to-great athletes (N = 6)	
Motivational issues and orientation	25	60%	5	83%
Drive	10	24%	4	67%
Passion	8	19%	2	33%
Goal dedication	7	17%	4	67%
Performance enhancement skills and characteristics	16	38%	5	83%
Self-regulation	11	26%	5	83%
Talent/Ability/Genetics	2	5%	1	17%
Focused	1	2%	1	17%
Positive	1	2%	1	17%
Belief in self	1	2%	1	17%
Accumulated training time	1	2%	1	17%
TOTAL	42			

Motivational Issues and Orientation. Overall, motivational issues and orientation was the most referenced umbrella theme, with 25 (60%) quotes citing its relevance. In fact, five of the six athletes each referenced motivational issues and orientation as a factor that allowed them to sustain their performances. Sub-themes consisted of drive, passion, and goal dedication (24%, 19%, and 17%, respectively).

The sub-theme drive was mentioned by four athletes, and it included the raw data themes goal oriented, strive to be your best, and driven to prove others wrong. In particular, two athletes mentioned having a goal that required a “single- minded” approach, which was actively pursued. The achievement of each goal resulted in the creation of incremental challenging goals:

> Yah. That was my thing. To me it's like the goal you achieve it. Great. You do your party, you do your thing, and then what's next. I remember the first time I won the World Championships in 'XX, I was, "Okay great, I got my medal and everything," and I remember we did all the interviews and everything, and almost at the end of the interview, I was thinking already about outdoors. (Chris, ln 1060-1064, p.26)

Being constantly goal oriented appeared to be an instrumental factor for this athlete. He further distinguished himself from other individuals who set and achieved a goal, but did not attempt to set additional goals. He explained,

> Maybe they're going to be satisfied with what they have, with what they achieve. I mean I always say if its fine for them, it's okay. If they are happy and that was the goal, it's fine. (Chris, ln 1037-1039, p.25)

The theme of "striving to be your best" was also articulated by two athletes, whereby excellence may vary from person to person. Excellence is self-referenced and determined by the person. Performance is not determined by the expectations of others, but by their desire to be their best, whatever that may be. One athlete described it by putting the interviewer in her position. She said,

> When it comes down to the last thing, someone can't say, "Nicole you have to go to practice. You can't do this, you can't do that." If you don't want to do it, you're not going to do it. You know what I mean? So it's like, "Okay, this is what I have to do and I'm going to do the best that I can." (Fran, ln1155-1158, p.28)

Likewise, another athlete reflected on his achievements and consistency of super-elite performances by comparing it to a personal competition against the clock or the tape measure. He explained,

> And I think… I think when I was a younger athlete, the magic of just getting that tape measure out and just seeing where it would show on the board, and seeing a new personal best, that's the magic of athletics. I love it. I mean records are great and winning some medals, but I still think it's a battle against the tape or the clock. (Dave, 919-924, p.23)

Driven to prove others wrong was another sub-theme of drive identified in helping to sustain the transition from good to great. Specifically, Eve spoke of how the doubting of others in her ability, motivated her to be successful and prove them wrong. She said,

> Like, at my National Championships a girl wrote in the papers "Eve isn't going to make the team [XXXX World Championships].' The worst thing they could do because they just give me a little bit more desire, just to prove that I can do it. I kind of thrive on negativity. (Eve, ln 1039-1042, p.25)

Passion was another sub-theme of motivational issues and orientation, strongly emphasized by two athletes. These athletes spoke of their inability to be completely satisfied. Their relentless pursuit of excellence seemed to be fueled by an inherent urge. One athlete described his ability to sustain his great performances as an insatiable hunger:

> Okay. I would say you always have to be hungry. Hungry. You achieve something, you go further, and further, and further. And to me some people… I mean how can I say? It's not bad to say, but sometimes people are okay to deal with a certain level, even if they can go higher with harder work, more sacrifice and achieve more. (Chris, ln 1034-1037, p.25)

For another athlete, his passion was his spiritual faith, which indirectly influenced his passion for track and field:

> Like look, I don't underestimate at all the impact that faith had on my career. Had I not had the faith, I might just have found another way; a different motivation, different psychology. But, I don't try and rewrite history and say, "Oh, it didn't make a difference at all," because it made a big difference. (Dave, ln 486-489)

This athlete also spoke of being able to maintain his motivation, "So, that's- or maybe that's the thing year after, year after, year, I could maintain motivation…" (Dave, ln 940-941, p.23). His motivation never wavered, and for him this allowed him to also sustain the subsequent great performances he experienced.

Similar to drive, four athletes mentioned goal dedication as influencing their ability to sustain super-elite performances. Goal dedication was the third sub-theme expressed with commitment, determination and resiliency as raw data themes. As already mentioned, the previous athlete had a passion that rested in faith, and he also was committed to this faith:

> But I think again for me, faith was an important part of that. Just because I was an Olympic Champion and World Record Holder it didn't let me off the hook of being essentially, someone who was trying to serve God. And I thought the way that I was doing that was through being an athlete. So the reason, why I was doing it wasn't taken away. (Dave, ln 949-954, p. 23)

This athlete was incredibly dedicated and committed to his faith. Interestingly, he also sustained his super-elite performances the longest of all the good-to-great athletes.

The raw data theme, resiliency, of the goal dedication sub-theme was illustrated with an athlete who emphatically described his determination and inability to accept defeat. He said, "I never give up. I never give up. I will search to find. I'm not that definition of insanity. If one way doesn't work, I'll find another way" (Bob, ln 1005—1006, p.25).

Similarly, another self-reported resilient athlete acknowledged setbacks as something shared among everyone, but how she approached setbacks made the difference:

> I try to take the ups and downs because I had my ups and downs. Everybody has their ups and downs, whatever level it is and honestly people deal with things all the time, but at the same time, it's how you deal with those things. And I've realized that. (Fran, ln 1143-1145, p.27)

Performance enhancement skills and characteristics. Similar to motivational issues and orientation, five good-to-great athletes spoke of various performance enhancement skills and characteristics (38%) that allowed them to sustain their super-elite performances. Self-regulation was the greatest sub-theme mentioned overall by good-to-great athletes (26%). Five raw data themes comprised the sub-theme of self-regulation, including good work ethic.

Good work ethic was a quality that three of the athletes prided themselves on regulating. It appeared to be a quality they controlled and demonstrated, which allowed them to distinguish themselves from other athletes. For example, when asked how he was able to sustain his great performances, Bob quickly replied,

> Number 1, I don't know anybody who works as hard as me. I know a lot of people work hard and I'm sure they work harder than me. But, I don't see it. Work ethic is my number one thing. (Bob, ln 1001-1003, p.24)

Likewise, Fran stated,

> And when I go to training I give all of my energy. I leave everything out there, and when I come home I just crash. These are the things that I do that helps me, that I think makes me last in this sport. I do everything. I realize when you are on top you have to do what you've always done and more. I have. My work ethic, I think is the key. Because I

> think as you get older you have to find different ways of staying up there and keep improving. And it's like I said you have to do what you've always done to get there and more. (Eve, ln 1027-1033, p.25)

Similarly, the ability to demonstrate discipline and committed routine of action was also mentioned. Dave pondered for a moment as he reflected on his years as an athlete, then stated,

> I suppose having the… the discipline just to do that year, after year, after year, to apply the same mindset, or to be in it at slightly a different angle. I lifted that same set of weights, in the same corner of the gym for 15 years or jumped over the same hurdles, or just so repetitive. Yah, I was able to do that. (Dave, ln 936-940, p.23)

He brought to light how simple his routine was, possibly even monotonous; however, the ability to be disciplined yielded great results which he sustained.

Taking care of self was described as making smart daily decisions, thereby allowing athletes to perform optimally in training and competition. Some of the smart decisions made included eating well, going to bed early, and choosing not to party. Eve explained,

> First of all I take very good care of myself. People think I'm boring, but I really love my sport and I figure, some people might not agree with me, but you have to make certain sacrifices. I go to bed really early in the night to make sure I'm well rested. Because I can't expect to go partying, and be up all night on my legs and expect to get the best out of my body come the next day at practice. (Eve, ln 1023-1027, p.25)

Drawing a parallel to taking care of self, Adam emphasized a need for knowing himself and creating a balance in his life and sport. Balance in life and sport included minimizing distraction and creating an optimal environment of support, which then allowed him to position himself to sustain consistent great performance. He stated,

> And I think if you find balance, in however you find balance (that's really your own personal balance) and then after you do those two things, if you find the right people around you who trust and believe, then the ability to be consistent over a longer term is way more easier. (Adam, ln 990-994, p. 24)

In addition to the sub-theme, self-regulation, three raw data themes were categorized as performance enhancement skills and characteristics. These included being talented (5%), focused (2%), positive (2%), and having a belief in one's self (2%). One athlete spoke of having a strong self-belief, affirming, "I know what I am capable of doing. And at the end of the day, I'm the one who's going to make the difference in my life" (Fran, ln 1154-1155, p.28). This athlete also mentioned that being positive, and holding herself accountable to herself had assisted in her ability to sustain her performances.

Finally, Fran was one of two athletes who referenced physical characteristics as greatly influencing her ability to not only make the transition but to sustain it as well. She explained,

> I mean I'd probably have to say genetics have played a huge factor for me, being able to be consistent. I mean you can't build somebody into something that they are not. I mean you can train someone to a certain level, but you have to have certain abilities to begin with. So, I think being genetically blessed has helped to be at the level that I'm at. (Fran, ln 960-964, p.23)

While psychological factors may have played an important role in her ability to sustain her transition, she makes it clear that physical attributes and genetics are equally important.

Comparatively, one athlete highlighted the relevant role that the ability to focus played in his long standing consistent performance. He stated, "…to produce that level of performance. Instead of… you know, to produce one incredible year is one thing, but to do it year after year

after year that requires a lot of single mindedness" (Dave, ln 941-943, p.23). He draws a distinction between being able to have one great year of performances and sustaining his performance over many years. Remarkably, once this athlete made the transition from good to great, he sustained it for the remainder of his athletic career.

Accumulated Training Time. While motivational issues and orientation and performance enhancement skills and characteristics were commonly recognized as influential factors in the majority of the good-to-great athletes, one athlete did mention the relevance of accumulated training time (2%). Dave did not see his transition as a dramatic shift but rather a gradual progression of athletic development. Once attaining complete development as an athlete, he believed he was simply performing at his level of capability. He described it as,

> I'd suppose I'd say the transition was just a part of the maturing process as an athlete because I had come to it relatively late. So, it was just a case of building a foundation. And once it was built, I reached a certain level and that was my level. (Dave, ln 934-936, p.23)

Factors Distinguishing Good-to-Great Athletes from Direct Comparison Athletes

To compare possible mental factors and psychosocial emotional changes distinguishing good-to-great athletes from direct comparison athletes, participants were asked a series of questions pertaining to their athletic development and training, as well as the strategies they used to initiate improvements in their performances. Direct comparison athletes were also asked to identify factors that could have allowed them to make the shift from good to great.

Athletic Development and Training Differences

Considering the athletic development and training differences of good-to-great and direct comparison athletes, participants were asked: (a) What sports did you play growing up? (b)

What age did you begin your event? (c) On a scale of one to 10, what confidence did you have in the decisions at the time they were made, before you knew their outcome? (d) Who was/were your coach(es) during your athletic career? (e) How much did your training change (e.g., quality, quantity, and effort) throughout you athletic career? Overall, the responses revealed that good-to-great athletes and direct comparison athletes did not differ significantly in their decision to make a change from good to great, in the sports they played growing up, the age they began their discipline, how long they competed in their respective event, and the number of coaches they had. However, group differences were found in the in confidence scores, and in training changes (Table 7).

Every athlete reported participating in various sports growing up. The average age good-to-great and direct comparison athletes began their discipline was 17.8 and 16.7- years old, respectively. Likewise, the average number of years the good-to-great and direct comparison athletes competed in their discipline was 15.5- and 15.2- years for both groups. Finally, good-to-great athletes and direct comparison athletes reported an average of 4.3 coaches throughout their athletic career.

Athletes were also asked to reflect on the confidence they had overall when making a decision in their career. The good-to-great athletes reported a retrospective average confidence score of 9.8, and the direct comparison athletes had an average of 7.6.

Evaluating training changes revealed that the majority of good-to-great athletes made changes to the quality, quantity, and effort of their training, while fewer direct comparison athletes reported making training changes. Specifically, good-to-great athletes reported increasing the quality of their training (n = 4), increasing (n = 4) and decreasing the quantity (n = 1) of their training, and increasing their effort (n = 3). Direct comparison athletes reported

increasing the quality of their training (n = 3), as well as increasing (n = 1) and decreasing (n = 1) the quantity of their training. No changes to training effort were reported by direct comparison athletes.

Table 7

Athletic Development and Training Differences Between Good-to-Great and Direct Comparison Athletes

Athlete	Sports played growing up	Age began discipline	Years in Sport	Confidence	Training Changes			Total Coaches
					Quality	Quantity	Effort	
Adam	Various Sport	23	10	10	Increased	Increased	Increased	3
Bob	Various Sport	16	17	10	Increased	Increased	Increased	6
Chris	Various Sport	21	13	10	Increased	No Change	No Change	6
Dave	Various Sport	18	16	10	Increased	Decreased	No Change	2
Eve	Various Sport	14	22	10	Increased	Increased	No Change	5
Fran	Various Sport	15	15	9	No Change	Increased	Increased	4
Good-to-Great Average	Various Sport	17.8	15.5	9.8	Increased = 5	Increased = 4 Decreased = 1	Increased = 3	4.3
Greg	Various Sport	23	10	6	No Change	No Change	No Change	1
Heather	Various Sport	18	13	6	Increased	Increased	No Change	3
Ian	Various Sport	16	19	9	Increased	Decreased	No Change	4
Jane	Various Sport	11	26	10	No Change	No Change	No Change	7
Kyle	Various Sport	16	10	4.5	Increased	No Change	No Change	5
Liam	Various Sport	16	13	10	No Change	No Change	No Change	6
Direct comparison	Various Sport	16.7	15.2	7.6	Increased = 3 No Change = 3	Increased = 1 Decreased = 1	No Change = 6	4.3

Strategies Implemented to Improve Performances

To determine how strategies were initiated to create a shift from good to great, what these strategies were, and if there were any distinguishing factors between the two groups of athletes, good-to-great and direct comparison athletes were asked three questions for evaluating the strategies implemented to improve performances. These questions included: (1) To the best of your recollection, when did you begin to make the key decisions to initiate a major change or transition to further improve your performance? (2) What sparked the decision to undertake a major change? (3) How did you go about making these decisions and strategies during your athletic career? Participant responses revealed 25 raw data themes grouped into 10 umbrella themes, which included influenced by others, analysis of training and technical needs, performances enhancement skills and characteristics, motivational issues and orientation, analysis of nutritional need, environment change, social comparison, accumulated training time, negative experiences, and happenstance (Figure 6, Table 8).

Influenced by the Support of Others. Overall, influenced by the support of others was the most referenced umbrella theme by both groups of athletes (N = 9). However, good-to-great athletes cited influenced by the support of others more (48%) than direct comparison athletes (24%). Five good-to-great athletes and four direct comparison athletes explained how various individuals in their lives influenced the actions and directions they took in their athletic pursuits, and they identified this as a strategy used to improve their performances. Influenced by the support of others included seven raw data themes: support of coach, belief in coach, influence of family, influence of teammates, influence of spiritual needs, influence of sport psychologist, and suggestions by others.

Sample representative quotation	Umbrella theme	Sub-theme	Raw data themes
Like I said I made that conscious decision in the first conversation I had with [Coach] in XXXX in March 1st XXXX. (Adam, ln 651-653, p. 17)	Influenced by support of others (38)		Influence of coach (17) Believed in coach (4) Influence of family (6) Influence of teammates (5) Influence of spiritual faith (2) Influence of sport psychologist (2) Suggestion by Others (2)
The only thing I was focused on, I remember this very clearly, it's like the technique. (Chris, ln 573-574, p.15)	Analysis of training and technical needs (17)		Mastery of technique focused (10) Analysis of training (7)
Talking to myself; letting myself know, if this is what you want to do you've got to do this, and this, and blah, blah, blah. And that was the big things those years. (Ian, ln 642-644, p.16)	Performance enhancement skills and characteristics (10)	Self-regulation	Self reflection (4) Self-Talk (1) Focused (1) Hard worker (1)
			Improved confidence (2) Mentally prepared (1)
I think too as an older athlete is to just try and keep that passion alive to work towards the goals I want to achieve. (Ian, ln 621-623, p.16)	Motivational orientation (11)		Passion (5) Dedicate (2) Goal oriented (4)
You know I really wanted to do some great things so I was like, I'm going to change the way I eat. And it doesn't mean I don't have fast food ever. But, it's just… There were times that I've had fast food for lunch and dinner at McDonald's in the same day. That's disgusting. So, then we started to wean myself off that, supplementation. (Heather, ln 778-782, p.19-20)	Analysis of nutritional need (10)		Analysis of nutritional need (10)

Figure 6. Themes for strategies implemented to create a shift from good to great. The number of times each theme was referenced is represented by parentheses.

Figure 6 (cont'd)

Sample representative quotation	Umbrella theme	Sub-theme	Raw data themes
I wanted the people that came with a good group of guys, and I didn't have that and then [city] was more individual. (Liam, ln 484-486, p.13)	Environment change (7)		Environment Change (7)
So I was like, "Okay this is the perfect example. This guy came from this to this. I see this there's a change. Why is he successful? Why did he change?" So, it took me… It was about 'XX… a couple of years. I see success, winning the World Championships, winning the Olympics and everything. I want a piece… to be closer to that. I call [Coach] and say, "Hey [Coach], I want to come to [city]." (Chris, ln 638-644, p.16)	Social comparison (6)		Success of competitor (6)
I think it was gradual. I think it was gradual. (Eve, ln 622, p.16)	Accumulated training time (5)		Gradual long-term progression (5)
After 'XX when I didn't make the World Champs team- I decided to head to [Country] and take my sport more seriously. (Greg, ln 1325-1326, p.31)	Negative experiences (6)		Past performances (5) Injury (1)
No, I think, I think I was really lucky. Timing is everything. When [Training partner]--. I remember just being in my car on the phone and I had decided to retire and I was selling real estate here actually in [city] and he goes, "Come on, you're not done, you've got more in you"... (Bob, ln 519-522, p.14)	Happenstance (6)		Happenstance (6)

Support of coach was cited by good-to-great athletes (23%) more than direct comparison athletes (10%). One good-to-great athlete explained how his coach's belief in his ability impacted his decision to train seriously and follow the directions of his coach. He stated, "Like I said I made that conscious decision in the first conversation I had with [coach] in XXXX in March 1st XXXX" (Adam, ln 651-653, p. 17). He additionally explained, "So, [Coach] is like, 'Listen you're blessed with genetics. You've got stuff I haven't seen and so here's the deal, if you listen you want to do it, do it!'" (Adam, ln 697-698, p.17) For this athlete, his coach's approach reminded him of his father.

Another good-to-great athlete who had achieved some success prior to training with his new coach, explained being initially apprehensive to make any changes but decided to follow his new coach's instructions and change his technique. He said,

Table 8

Strategies Implemented to Create a Shift From Good to Great

Umbrella Theme	Number of Themes		Number of Good-to-Great Athletes (N = 6)		Number of Themes		Number of Direct Comparison Athletes (N = 6)		Total Number of Themes		Total Number of Athletes (N = 12)	
Influenced by support of others	23	48%	5	83%	16	24%	4	67%	39	34%	9	75%
Support of coach	11	23%	4	67%	7	10%	4	67%	18	16%	5	42%
Believed in coach	3	6%	3	50%	1	1%	1	17%	4	3%	4	33%
Influence of family	6	13%	1	17%	0	0%	1	17%	6	5%	2	17%
Influence of teammates	3	6%	1	17%	2	3%	1	17%	5	4%	2	17%
Influence of spiritual faith	0	0%	0	0%	2	3%	1	17%	2	2%	1	8%
Influence of sport psychologist	0	0%	0	0%	2	3%	1	17%	2	2%	1	8%
Suggestion by others	0	0%	0	0%	2	3%	1	17%	2	2%	1	8%
Analysis of training and technical needs	11	23%	3	50%	6	9%	2	33%	17	15%	5	42%
Mastery of technique focused	10	21%	3	50%	0	0%	0	0%	10	9%	3	25%
Analysis of training	1	2%	1	17%	6	9%	2	33%	7	6%	3	25%
Performance enhancement skills and characteristics	1	2%	1	17%	9	13%	3	50%	10	9%	4	33%
Self reflection	0	0%	0	0%	4	6%	2	33%	4	3%	2	17%
Self-Talk	0	0%	0	0%	1	1%	1	17%	1	1%	1	8%

Table 8 (cont'd)

Focused	0	0%	0	0%	1	1%	1	17%	1	1%	1	8%
Hard worker	0	0%	0	0%	1	1%	1	17%	1	1%	1	8%
Improved confidence	0	0%	0	0%	2	3%	1	17%	2	2%	1	8%
Mentally prepared	1	2%	1	17%	0	0%	0	0%	1	1%	1	8%
Motivational issues and orientation	1	2%	1	17%	10	15%	3	50%	10	9%	4	33%
Passion	1	2%	1	17%	4	6%	1	17%	4	3%	2	17%
Dedicate	0	0%	0	0%	2	3%	2	33%	2	2%	2	17%
Goal oriented	0	0%	0	0%	4	6%	2	33%	4	3%	2	17%
Analysis of nutritional need	0	0%	0	0%	10	15%	3	50%	10	9%	3	25%
Environment change	2	4%	2	33%	5	7%	2	33%	7	6%	4	33%
Social comparison	4	8%	2	33%	2	3%	2	33%	6	5%	4	33%
Accumulated training time	3	6%	1	17%	2	3%	1	17%	5	4%	2	17%
Negative experiences	0	0%	0	0%	6	9%	3	50%	5	4%	3	25%
Past performances	0	0%	0	0%	5	7%	3	50%	4	3%	2	17%
Injury	0	0%	0	0%	1	1%	1	17%	1	1%	1	8%
Happenstance	3	6%	3	50%	3	4%	2	33%	4	4%	4	33%
TOTAL	48				68				116			

> Because the first training I had with [Coach], we were doing blocks, we were doing sprints and [Coach] was like, "You're not running properly."
>
> I was like, "Yah, whatever. What are you talking about? I mean I won the World Indoor Championship, and I'm winning this and that and I'm not running well? Okay, whatever buddy!" [laugh] You know kind of thing. And he taught me how to run properly. And I tried it. And at first it was all awkward, and I'm like, "Hmm, I don't know about that?"
>
> And [Coach] was always like, "Trust it, trust it, trust it." And he told me after one training if I run like that at the [National] Championship, which was one month after that training camp, he goes I'm running 9.89 [s]. (Chris, ln 583-585, p.15)

Additionally, three of the four athletes who cited support of coach also mentioned believing in their coach as a strategy they implemented to create change. Chris explained:

> Already, there was trust there because I know what he's doing with Adam, it's working. He's very careful when he's in training and everything. I said, "Well this is what I needed."
>
> So, when [Coach] said "Trust it," and I know sometimes you have to take risks.
>
> And I'm like, "Let's go. I trust you 100%. Let's go. I believe it." And that's it. (Chris, ln 654, p.17)

Similar to the good-to-great athletes, support of coach was referenced by four direct comparison athletes, with one of these athletes further citing belief in their coach as a strategy implemented to induce a positive shift in her performance. For this athlete because of her initial belief in her coach, she decided to train with him, even though he had not coached her event before. She stated, "Going and working with a coach who was clearly- and he wasn't even a

sprints coach. He was a coach. He got me stronger, fitter and through that I got better as an athlete" (Greg, ln 1096-1098, p.26).

The generosity of another coach allowed Ian, who lived in a different city, to make the change in coaching and train with him. This athlete would travel in blocks of time and stay with his coach as he systematically made changes to his training, in order to improve his performances. He explained,

> He [coach] let me stay at his house for a couple weeks or whatever and train and learn the system. And then I would come back to [city] and try and implement everything that I learned, and go back out there and do like that. (Ian, ln 756-758, p.19)

Of the remaining raw data themes, one direct comparison athlete was found to have cited either influence of family, influence of teammate, spiritual faith, sport psychologist, or suggestion of others as a means by which a strategy for change was implemented. For example Ian explained how he would rely on prayer and a sport psychologist in making major decisions in his athletic career. He said,

> I would pray or talk to people. You know, like I have a sports psychiatrist or psychologist that I speak to very often. That I spoke to then, and I have a new one that I speak to now. That's one of the reason why I was having to figure out that I needed a coach. In XXXX a guy named [Sport Psychologist], [Sport Psychologist] was like, "You know what. You need to figure out who's the best coach in the nation, or who is a great coach that you could work with, in the nation" So we kind of brainstormed on different names of coaches. (Ian, ln 773-770, p.19)

Additionally, this direct comparison athlete also referenced the influence of his teammate and competitor as impacting his decision to change coaches and his technique. He explained,

> I really liked [Athlete's] approach. He was a great jumper. He was doing some great things. So I asked him who his coach was. He told me he was training with [Coach]; he was like a great coach. And then he was like, "You should come out and talk to him." (Ian, ln 738-741, p.19)

Another direct comparison athlete described how she listened to the suggestions of others to determine the strategies she implemented in her training to invoke a shift in her performances. She stated:

> Or if somebody told me that I had to move all the way back to go train with a training group with [coach], or these girls, had to watch her video or- I made a lot my decisions based on what I needed at the time and I had to pretty much try and do- if somebody told me, "Oh, you need acupuncture," well I hate needles, but I know that it does work, and I know that I need it intuitively, I will try it. I think a lot of my decisions were based on common sense and need. (Jane, ln 683- 688, p.17)

This athlete also discussed having periods in her career where she did not have a coach. For Jane, a referral from someone with experience and knowledge was a reliable source and a form of support.

While no good-to-great athletes referenced influence of spiritual faith, influence of a sport psychologist or the suggestion of others as a mediating factor, influence of family and influence of teammates were each mentioned by a good-to-great athlete. One athlete in particular found her husband to be a huge determinant in her ability to make the shift from good to great. She said,

> And it was only in December before the Olympics, [Husband] was like, "I know we've just been married and it's really tough, you need to go back and train with [Coach]. You

can't keep training yourself. This isn't going to work." So, long story short, him and I did the long distance thing for a little bit while he was still in school, and I went back and stayed with my parents, to train with [Coach] to get ready for the Olympics. (Fran, ln 431-436, p.12)

Similar to the direct comparison athlete, one good-to-great athlete cited his teammate as impacting his decision to continue training, as well as the changes he made in his training. Bob had actually retired from track and field when his competitor convinced him to continue competing and invited him to train with him. He explained,

It's not like anything changed. Somebody just smacked me over the head and said, "What are you doing? You're still young. You can still train. You can still compete." So, I said, "Okay, I'll give it another shot." It's nothing like I was really motivated or --. I don't think there was any other factor other than I just wanted to continue on doing what I loved doing. I retired too early. (Bob, ln 519-531, p.14)

Analysis of training and technical needs. Analysis of training and technical needs was cited by three athletes in both groups of athletes. However, good to great athletes (23%) made more mention of it than the direct comparison athletes did (9%). Mastery of technique focus and analysis of training were grouped as analysis of training and technical needs, which was found to be the second most commonly cited umbrella theme overall.

Specifically, mastery of technique focus was cited only by good-to-great athletes (21%) as a strategy implemented to improve their performances. Good-to-great athletes explained having a desire to improve their skill for their event. For example, Chris mentioned, "The only thing I was focused on, I remember this very clearly, it's like the technique "(Chris, ln 573-574, p.15).

Likewise, another good-to-great athlete explains her transition as being rooted in perfecting the technique involved in her event. She said,

> Because, it's not like I just jumped from 12.6 [s], 12.8 [s] I was still running 12.6 [s] but now I was running 12.4 [s] and 12.5 [s] consistently. And that's just from a correction in your mechanics. It's not like I ran 12.3 [s]. (Eve, ln 630-632, p.16)

Comparatively, two direct comparison athletes cited analysis of their training, and one good-to-great athlete made mention of this raw data theme. Analysis of training was applied by athletes by assessing the strength and weaknesses in their training routine at the end of each season. For example, Dave stated,

> I sort of got analytical. So at the end of each year you sort of look back and think what can I change; what can I improve; how can I increase my motivation in training, all that sort of things. (Dave, ln 602-604, p.16)

Heather echoed similar sentiments as she described the method by which she and her coach made amendments on her training plan. She said,

> To make sure that I'm the most prepared that I can be? … Well, usually I'll identify a weakness. Like I'll come to practice and my stomach will hurt all the time. Well, it's like, "What are you eating? Oh, crap." We always identify- usually it's like what are we lacking? What's missing in the puzzle and then we'll take a look at my weaknesses. And then that's usually what sparks the change. It's like well this is how we fix it, by doing this and let's see if it makes a difference. So, usually those changes, whether it's in the program - the actual training program - or it's in lifestyle changes, it's always because we've identified a weakness and we need to change it in order to be the best prepared that you can be. (Heather, ln 813-821, p.20)

Performance enhancement skills and characteristics. For direct comparison athletes, performance enhancement skills and characteristics comprised the second most commonly cited sub-theme. Three of the six direct comparison athletes made reference to using self-reflection, self-talk, being focused, or being a hard worker; as well as, improving their confidence or being mentally prepared, as a strategy for change implemented. For example, Kyle mentioned being self-reflective in his approach to make a shift from good to great. He said,

> I've sat down with myself; and I've sat down with [Coach]; and also even [Sport Psychologist]. I've talked to her about certain things that I want, and want to see happen. It's just overall, I've sat down with myself and said this is what I want to do, and I've got to do everything to do it. (Kyle, ln 543-546, p.14)

Likewise, Ian mentioned using self-talk as a strategy to improve his performances. He described, "Talking to myself; letting myself know, if this is what you want to do you've got to do this, and this, and blah, blah, blah. And that was the big things those years" (Ian, ln 642-644, p.16).

He also discussed how he used the strategy of being focused to prepare for the Olympic Games. He stated, "And as 'XX came around, you know I just tried to stay as focused as possible. But, still from a training aspect, I was doing the same things." (Ian, ln 693-694, p.18)

Additionally, Ian also mentioned using the approach of a hard worker to help bolster his performances and allow him to make the transition. He explained his training as: "Going out everyday and working hard. And not just working hard, because I can go out there and work hard everyday, but be passionate about what I'm doing." (Ian, ln 623-625, p.16)

Ian also described developing sport confidence through past performances and using it to further improve his performances. He explained,

> I mean yah, there was little things, like I got to run a little faster. But, those things actually came because I was getting more confident. It was like, "Oh, oh well I can run this fast and still jump high. I didn't know that. So let me run faster." You know it was those things that kind of came into play. (Ian, ln 689-692, p.17-18)

Mentally prepared was the only raw data theme from performance enhancement skills and characteristics mentioned by a good-to-great athlete (N = 1). Chris described acknowledging in his final stages of preparation for the World Championships he must also be mentally prepared along with being physically prepared. He said,

> And in XXXX after one practice [Coach] told me, "This was it." After whatever 20 or 30 years he was coaching, we were doing 120 [m], apparently I did the 120 [m] fastest ever of his athletes. He goes to me, "Chris, I have the legs to run 9.7 [s]. Physically I'm capable to do that. Now the only thing is to run the race no mistake and I have to be ready 100% psychologically." I remember that properly. (Chris, ln 658-602, p.10)

His performance at this event was also his best career performance.

Motivational issues and orientation. The raw data themes goal oriented, passion, and dedicated were grouped under the umbrella theme motivational issues and orientation. Similar to performance enhancement skills and characteristics, motivational issues and orientation were found to be the more commonly cited by the direct comparison athletes (15%). For example, one athlete explained that in the first university he attended he had achieved many goals, including breaking the school record, and there was not much left for him to strive to achieve. He needed more challenging goals to pursue, and this influenced his decision to change schools. He said,

> I had broke the school record as a freshman at [University] and I think there wasn't a whole lot to be accomplished after that. I had great coaching and good people looking

after me, but I wanted to be best and I thought that I needed to be in an environment where people shared the same common goal as you. A different, more aggressive, more driven teammates was important and have a team where guys got along and went after the same goal. (Liam, ln 450-455, p.12)

Similarly, Ian explained how passion played an intricate role in his performances and the strategies he implemented for change.

> But, it's just one of those things, making sure I am passionate on every run, on every time that I lift weights, on every time I step on the track and jump. On everything that I do, I want my best to be as passionate about it as possible, and I think that if I bring that into my jumping that would help me out a lot more as well; because that is one of the bigger things I didn't realize until I got older, is what pushed me to that next level as well, is that passion. (Ian, 633-638, p.16)

This athlete was still competing and hoping to make the transition from good to great in his future performances. Realizing the importance of passion, at the time of the interview Ian was making a consorted effort to reestablish his passion.

This athlete also explained the application of dedication as a strategy to improve his performances. He referenced a time in his career when he was dedicated and had improved significantly. He said,

> The major change came that year, which from 'XX to 'XX when I decided, "You know what, I'm going to really dedicate myself to this training program. Lifting weights. Every day I need to lift weights. Training. Everyday I need to train," and just dedicating myself that year. And when I saw the results come directly doing that, that's when I

knew that's what I've got to do. That's what I have to do. If I want to be great I should do that every year, because that's what works. (Ian, ln 616-621, p.16)

In good-to-great athletes only one athlete made reference to the umbrella theme of motivational issues and orientation in their mention of passion. Bob explained that his decision to return to competition and make that shift from good to great was influenced by his love and passion for his sport. He said,

> And I remember thinking, "Yeah you know what? I do. I love sports. I love track. I can't be done." So, I just decided to get up and go and just do it… I just wanted to continue on doing what I loved doing. I retired too early. (Bob, ln 520-531, p.14)

Analysis of nutritional need. Three direct comparison athletes described assessing and changing their nutrition as a strategy implemented to improve their performances. Proper nutrition was acknowledged as a facilitator for great performances. Heather Heather, who had struggled with making nutritional changes was trying to make a shift from good to great and explained assessing her nutritional need as one strategy she had implemented. She said,

> You know I really wanted to do some great things so I was like, I'm going to change the way I eat. And it doesn't mean I don't have fast food ever. But, it's just… There were times that I've had fast food for lunch and dinner at McDonald's in the same day. That's disgusting. So, then we started to wean myself off that, supplementation. (Heather, ln 778-782, p.19-20)

No mention of analysis of nutritional need was cited by any of the good-to-great athletes.

Negative Experiences. Negative experiences were also not referenced by good-to-great athletes, however, three direct comparison athletes mentioned negative past performances (7%) or an injury (1%) as a factor influencing how they made attempts to initiate changes to improve

their performances. Specifically, five quotes were found to reference negative experiences as a stimulus for change. For example Greg stated,

> After 'XX when I didn't make the World Champs team- I decided to head down [Country] and take my sport more seriously. (Greg, long 1325-1326, p.31)

Similarly, Jane stated,

> Plus then I ended up having two knee surgeries, my beginning of my sophomore year, the beginning of my junior year because I was jumping at too heavy of a weight. Definitely good to bad! (Jane, ln 376-378, p.11)

Jane described how competing overweight resulted in a serious injury to her knee, which required surgery. As a result, this athlete decided to make significant changes in her training and eating habits.

Environment change. Two good-to-great athletes and two direct comparison athletes cited changing their training environment to create an optimal environment for high performance. As explained by Liam:

> I had great coaching and good people looking after me, but I wanted to be best and I thought that I needed to be in an environment where people shared the same common goal as you. A different, more aggressive, more driven teammates was important and have a team where guys got along and went after the same goal. (Liam, ln 451-455, p.12)

Social comparison. Two good-to-great athletes and two direct comparison athletes described social comparison as a strategy implemented to improve their performances. Specifically, athletes compared themselves to their competitors and what they were doing as a model for improving their performances. For example, one good-to-great athlete [Chris]

described witnessing his competitor improve dramatically and wondering how he, too, could have the same results. He explained,

> But, basically what changed in Adam, it was his biomechanics! And I was like, "Motherf@#&er!" Oh, sorry [laugh]. Sorry about the language [laugh]. So I was like, "Okay this is the perfect example. This guy came from this to this. I see this there's a change. Why is he successful? Why did he change?" So, it took me… It was about 'XX… a couple of years. I see success, winning the World Championships, winning the Olympics and everything. I want a piece… to be closer to that. I call [Coach] and say, "Hey [Coach], I want to come to [city]." (Chris, ln 638-644, p.16)

Likewise, one direct comparison athlete described seeing the performances and actions of other athletes at another school, and wanting to be a part of it. He said,

> …and decided to go to [University] because when I was at the NCAA Indoors Championship, I saw the way they were behaving and I saw the way they were challenging to compete and I wanted to be with them. (Liam, ln 469-471, p.13)

Accumulated training time. One good-to-great athletes and one direct comparison athlete mentioned accumulated training time as a strategy implemented to improve their performances. This good-to-great athlete had not made a conscious decision to initiate a change from good to great. Instead she explained,

> This is a tricky question, because you don't go there and say, "Ok, I'm going to improve now." You just do the things and hope it's going to work out. And as I said, we've just been doing the same thing over and over, and I just got better at it each time, each year, each season as we go by. I never really changed anything that much. (Eve, 650-653, p.17)

Similarly, Ian reflected on his best year of performances as one in which there were no major changes, but rather the result of accumulated training. He said, "And as 'XX came around, you know I just tried to stay as focus as possible. But, still from a training aspect, I was doing the same things" (Ian, ln 693-694, p.18).

Happenstance. The final raw data theme referenced as a strategy in the implementation of a change for improved performances was the influence of happenstances. Three good-to-great athletes and two direct comparison athletes cited their chance encounters or the occurrence of a random circumstance as inducing the strategies implemented. For example, Dave described having an unfortunate illness, which rendered him incapable of training. As a result he found himself watching and studying film and becoming a student of his sport as he decided to change his technique. Additionally, he learned through his reduced work capacity that he performed better by decreasing the quantity and focusing on the quality in his training.

> And then obviously I had this virus, post-viral syndrome. I mean that was… I mean I was working through the early part of 'XX winter through to 'XX not knowing if I was a 100% fit. So, it was a very tentative start to a winter program. And the main thing was, through training quite lightly, because of this physical problem, I discovered that I got into shape with a lighter training load. (Dave, ln 603-608, p.16)
>
> But, you know I was getting a lot of opposition from a lot of places, not to mention I was going through some big transitions from leaving university to going to elite level. And then, so I ended up moving down to [city] in XXXX after the trials and I've been here ever since. (Ian, ln 712-715, p.18)

Another good-to-great athlete recalls receiving a random phone call cajoling him out of retirement. His teammate to be was actually calling to speak to his sister, when Bob answered.

This phone call was coincidental and the beginning a new friendship. The soon to be teammate ended up inviting Bob to train with him and pursue track and field seriously.

> No, I think, I think I was really lucky. Timing is everything. When [Training partner]--. I remember just being in my car on the phone and I had decided to retire and I was selling real estate here actually in [city] and he goes, "Come on, you're not done, you've got more in you"... (Bob, ln 519-522, p.14)

Comparatively, one direct comparison athlete, Liam, mentioned how the element of chance played a factor in his approach to improve his performances. His decision to attend a university on an athletic scholarship was based on the first school to call him. He said, "So, I just decided to go to [university] because they were the first ones to call me" (Liam, ln 468-469, p.13).

Factors That Could Have Improved Performances in Direct Comparison Athletes

To understand the mental factors and psychosocial-emotional changes associated with athletes who were unable to make the shift from good to great, direct comparison athletes were asked: (a) Knowing what you know now, do you believe you could have done anything different to further improve your performances to an even greater level? Or do you believe you maximized your potential? (b) If so, what would that have been? All direct comparison athletes believed they could have improved their performances to a greater level. Participant responses revealed four umbrella themes: performance enhancement skills and characteristics (40%), motivational issues and goal orientation (34%), skill mastery and quality of training (23%), and environment (3%) (Figure 7, Table 9).

Performance Enhancement Skills and Characteristics. Five of the direct comparison athletes referenced improving performance enhancement skills and characteristics (40%) as

factors that could have improved their performances significantly. This umbrella theme included the sub-theme psychological skills, which included having mental acuity, being focused, and being a stronger competitor/performing under pressure. Four athletes cited that if they had developed their psychological skills, their performances would have improved and

Sample representative quotation	Umbrella theme	Sub-theme	Raw data themes
…if I could erase that doubt then I would be consistently at a certain level. (Greg, ln 1258-1259, p.30)	Performance enhancement skills and characteristics (14)	Psychological skills (10)	Mental acuity (4) Focused (2) Perform under pressure (1)
			Improve Sport Confidence (5) Have fun/Enjoyment (1) Love self (1)
And I did it. And I was like, "Now what?" So in my last years I've had some ups and downs, in my last few years, but I lost a lot of passion too. I just didn't care about sports as much anymore.. (Ian, 647-649, p.17)	Motivational issues and orientation (12)		Sustain passion (7) Less outcome oriented (3) Less extrinsically motivated (1) Actualize Ability (1)
I think I would have studied a little bit more. Could have looked at things more objectively, as far as having an open mind. And do a little bit more comparison in training and things like that. Be little bit more of a student of the sport. (Liam, ln 655-657, p.17)	Skill mastery and quality of training (8)		Become a student of the sport 3) Training modifications (2) Recovery period (post Olympic Games) (2) Back to the basics of training (1)
Training environment, yes. Definitely training environment. (Heather, ln 1329, p.31)	Environment (1)		Environment (1)

Figure 7. Themes for factors that could have improved performances in direct comparison athletes. The number of times each theme was referenced is represented by parentheses.

Table 9

Factors That Could Have Improved Performances in Direct Comparison Athletes

Umbrella Theme	Number of themes		Number of direct comparison athletes (N = 6)	
Performance enhancement skills and characteristics	14	40%	5	83%
Psychological skills	7	20%	4	67%
Sport confidence	5	14%	3	50%
Have fun/Enjoyment	1	3%	1	17%
Love self	1	3%	1	17%
Motivational issues and orientation	12	34%	3	50%
Sustain passion	7	20%	1	17%
Less outcome oriented	3	9%	2	33%
Less extrinsically motivated	1	3%	1	17%
Actualize Ability	1	3%	1	17%
Skill mastery and quality of training	8	23%	4	67%
Become a student of the sport	3	9%	3	50%
Training modifications	2	6%	1	17%
Recovery period (post Olympic Games)	2	6%	1	17%
Back to the basics of training	1	3%	1	17%
Environment	1	3%	1	17%
TOTAL	35			

allowed them to make the shift from good to great. For example, one athlete described feeling limited in his ability to improve his mental skills. He said,

> It's like I can train my body and my mind as much as I can train it, but mentally my mind has limitations, whereas physically my body doesn't have those limitations. I think physically my body can jump 8 feet 7 [inches] or something. You know, I don't know. 2.50 [m], 2.60 [m] I probably can jump. But, mentally I'm only saying 2.34 [m], 2.35 [m], 2.36 [m]. You know if I didn't have those mental limitations. And how do you train that? You know I can train my body as fit as it can be.- (Ian, ln 1103-1108, p.26)

Comparing his physical ability to competitors who have had superior performances, Ian also reasoned mental ability to be a greater determinant of performance than physical ability. He explained,

> But, for the most part it's all a mental game. Right now, at this level where we're at, 90% mental, 10% physical. Everybody trains hard and do those things that are necessary to help you to be an elite athlete physically, but people who become great is the mental strength. It's the people who have more mental. The people who won the World Championships this year, won the Olympics are not in any more shape then I am. (Ian, ln 1115-1120, p.27)

Likewise, another athlete reflected on her failure to develop and implement psychological skills in her training, and the impact it has had on her performances. Jane compared her career overall with a year she did implement psychological skills in her training, and she stated,

> I could have absolutely been a mental student of this sport of track and field. That I know for sure. I know for sure. Because I know the impact it had on me in XXXX when I just wasn't physically able. I think its laziness, which is sad to say I could be that

> motivated and doing everything possible on the track, and then just out of sheer, "Like ahh." Because I was so fit and I was so strong, I relied so much on that, to the detriment of using my visualization, and realization, and focusing and all that stuff that I know matters. But it was just kind of like, "Ahh. I'll just kind of do this little stuff on the side and that's good enough."… That's what I would tell anybody. (Jane, 894-905, p.22)

The need to be focused was expressed by Heather. She discussed struggling with worrying about the outcome and past experiences and felt she needed to be more focused on the present:

> Like things didn't go well since XXXX on and just being like "This is where you're at now," and go straight for the goal. Rather than being "Well, what if this happens? What if this happens? What if this happens?" like it use to happen in the past. (Heather, ln 1318-1320, p.31)

When asked what she believed she needed to do to make that shift from good to great she replied, "Having to make that change to being very focused. Put the blinders on and just go" (Heather, ln 1321-1322, p.31).

Likewise, Kyle who was still competing felt that if he could become a stronger competitor and learn to perform under pressure his performances would have improved. He said, "And so the way they can be released by me just being better on meet days, execute on meet days and know that what talent I have, I can run x time." (Kyle, ln 877-878, p.22)

The raw data theme of improving one's sport confidence was also mentioned by three direct comparison athletes. Athletes remarked on their challenge with believing in their ability. For example, Greg expressed having doubts:

> Because I could never truly, truly, truly erase the doubt I had in maybe my ability, my ability as an individual. There was no doubt when it came to running a relay because I

was never going to disappoint my teammates. To disappoint myself that's different. (Greg, ln 1255-1257, p.30)

He further lamented that he could have made that shift to greatness if he had had no doubt. He said, "…if I could erase that doubt then I would be consistently at a certain level" (Greg, ln 1258-1259, p.30).

Similarly, Ian compared himself to good-to-great athletes and the influence sport confidence had on his performance. He said, "What's the difference between them and me, is basically mentally they are so much more confident than I am at those higher bars" (Ian, 1124, 1126, p. 27).

Having fun and loving oneself were other raw data themes expressed by one athlete. She mentioned experiencing self-loathing and not enjoying her sport. In one quote she stated,

> Because in XXXX I wasn't looking forward to anything. I was just doing it, because that's all I knew how to do. And I just want to look forward to competing. And even if I don't win, knowing that I was prepared. Getting back to how it use to be. Just having fun; even in workouts. Instead of looking at it as a workout, looking at it as an opportunity to see what you can do and then… There's times that you're laying on the ground and you are hurting so bad, but you know that in a couple of hours once you recovered "That was the greatest thing ever!" (Heather, ln 1333-1339, p.32)

Motivational Issues and Orientation. Three direct comparison athletes provided 12 (34%) quotes which were grouped into four raw data themes and were categorized as motivational issues and orientation. More precisely, these athletes referenced the raw data themes -- sustain passion, less outcome oriented, less extrinsically motivated, and actualize ability -- as factors that would have improved their performances. One athlete explained how

losing his passion after achieving his goal of becoming an Olympian negatively impacted his subsequent performances. He explained,

> Because I accomplished all my goals. I mean main goal was just to make an Olympic team. It wasn't even to get an Olympic medal. It was just to make an Olympic team! It's so hard to make an Olympic team. For one, you have to jump the standard, which is a big thing, and for two, is get top three on the day of the Olympic Trial Final, which is to train for 4 years for one day of your life, to make or brake you, to make the Olympic team is a very nerve racking- the Olympic trial for me was way more stressful than the actual Olympic Games in XXXX. Way more stressful. And I did a personal best at both of them…once you make the team at you're at Olympic Games, you're like, "Let's go out here and have fun" to me. Some people find it just the opposite. But, for me higher at that point and time, and being [citizen] and you know how I achieved my goals, I was just like, "I'm here! I accomplished my goal. Let me just go out here and have fun. (Ian, ln 655-673, p.17)

Ian had achieved all of his goals he had set and did not have any subsequent incremental goals to continue striving with an insatiable passion. In fact, he believed he needed to renew this passion to have continued to improve his performances. He said,

> I think just stepping away thing just stepping away from track and field for that year probably would have been better for me and better served me as an elite athlete to kind of renew that passion and get motivated again to want to get out there and high jump. (Ian, ln 1000-1003, p.24)

Additionally, this athlete believed he needed to become less extrinsically motivated. The success of becoming an Olympian had provided new opportunities, which he began to pursue.

As a result, it meant his performances declined and he failed to qualify for other national teams. He explained,

> But, you know I saw dollar signs of going to meets. I wanted to go to all of the Golden League meets at that point in time- now they're Diamond League meets, but I did that. There were other little goals, I kind of wanted to do so I just continued… So, as the years started going along, and I started missing teams that I wanted to be on, missing World Championships teams and Olympic teams, I was like, "Man this is tough! (Ian, ln1005-1015, p.24)

Another athlete mentioned the need to be less outcome oriented. She explained struggling with worrying about the outcome and failing to focus on the process. Still competing, she reflected on the changes she needed to make in order to make that shift in her career, stating:

> And once you make those decisions just go at it full force, and don't look back. Don't question. Just do what you know is right and then just… just see what happens. Don't dwell on what could have been or what should have been, just… once you make that decision to make those changes whatever they are - whether it's moving to a new training location. (Heather, ln 1352-1356, p.32)

Finally, Kyle mentioned feeling he had the ability to make the shift from good to great; however, he needed to apply himself and actualize it. He said,

> I don't feel like anything is missing. I feel like I have the tools, it's just I feel like knowing that I have the tools I have to, I have to bring them out. They have to just be released. (Kyle, ln 875-877, p.22)

Skill Mastery and Quality of Training. Four direct comparison athletes mentioned four (23%) raw data themes, grouped as skill mastery and quality of training. These athletes

believed if they had been a student of their sport, or had made changes to their training, their performances would have improved. Ian mentioned,

> I think I would have studied a little bit more. Could have looked at things more objectively, as far as having an open mind. And do a little bit more comparison in training and things like that. Be little bit more of a student of the sport. (Liam, ln 655-657, p.17)

Another athlete believed that if she had assessed the strengths and weaknesses of her training program and made changes accordingly she would have benefitted. In response to this question, she stated, "Work on the strengths, obviously, and minimize weaknesses. But, just identify those things that you know you're not doing that will probably take you to the next level" (Heather, ln 1350-1352, p.32). She also reflected on her current training plan and a need for it to become simpler and deliberate if she was to improve. She said,

> Looking to the simpler things, that's where I want to be because things got way too complicated and heavy. And I want it to be a lighter mood. And just be looking forward to things. Instead of just sitting there and just doing things because you think you have to. I think that's the thing. (Heather, ln 1341-1344, p.32)

Similarly, another athlete discussed feeling mentally exhausted after competing in the Olympic Games. He believed he should have taken a break, and had time to recover instead of continuing to compete:

> I think back on it too and I think maybe I should have taken XXXX off, because XXXX was not a great year for me; and then XXXX was the decline of everything. I had a very sporadic year of up and down. And then XXXX I feel like it was probably one of my

worst years as an elite athlete. But, I probably should have taken 'XX off. I was pretty tired and mentally I put a lot into 'XX. (Ian, ln 996-1001, p.24)

Likewise, Heather felt that her training had become too complicated and intense. She felt if they kept things simple in training and went back to the basics of what has worked her performances would improve. She described,

> Looking to the simpler things, that's where I want to be because things got way too complicated and heavy. And I want it to be a lighter mood. And just be looking forward to things. Instead of just sitting there and just doing things because you think you have to. I think that's the thing. (Heather, ln 1341-1344, p.32)

Environment. The final umbrella theme identified was environment (3%), by one direct comparison athlete. When asked what changes could have been made to improve her performances for a good to great shift, Heather Heather mentioned, "Training environment, yes. Definitely training environment" (Heather, ln 1329, p.31). Heather Heather described having to train with limited access to a facility and training partner, thereby negatively impacting her performances.

CHAPTER FIVE

Discussion

Introduction

Whether one is simply beginning one's journey as an elite athlete or one is a world class performer trying to become the best in one's discipline, making the shift in performance from good to great is a common goal shared by many athletes. Identifying the characteristics of great athletes provides a basis for understanding how it may be possible for other athletes to achieve excellence. However, if an athlete has always been on a trajectory of greatness (demonstrated by early superior athletic prowess with continuous incremental improvement over time) can the same principles be applied to athletes who have only ever been good? Inspired by the work of Jim Collins (2001), the purpose of this study was to gain an initial understanding of how some athletes are able to make the shift from good to great, and why others are unable to. Specifically, two research questions were addressed: (a) For athletes who were able to make the shift from good-to-great, what mental factors and psychosocial-emotional changes, if any, do they associate with this transition? (b) Are there mental factors and psychosocial-emotional changes that distinguish good-to-great athletes from comparison athletes?

Collins (2001) sought to understand whether it was possible for companies to make the leap from good to great, and if so what characteristics separated them from companies who were unable to do the same. While Collins (2001) found disciplined people, disciplined thought, and disciplined action, centered on a flywheel, separated good-to-great companies from their comparisons, his results have been criticized as being too vague (May, 2006). Moreover, these results were based on the performances of organizations and it is unclear if it would differ at the

individual level or for an athlete. However, Collins' approach can provide a basis for studies in various fields to explore the phenomenon of good to great.

Following the study design used by Collins (2001), this dissertation began by conducting a search for athletes who demonstrated a good-to-great performance pattern; as well as, comparison athletes who showed a pattern of only good results, with no punctuated transition of great performances. Results revealed some variations and support for Collins' (2001) good to great model, while also providing detail of the good to great processes in athletes. Specifically, considering the individual level of good to great, Level 5 leadership and having the "right people" in the right places (disciplined people) wasn't a theme revealed in the good-to-great athletes. Likewise, Collins' second stage of good to great, disciplined thought, involved confronting the brutal facts and the Hedgehog Concept. It was unclear in the good-to-great athletes whether they actually engaged in confronting the brutal facts.

Comparatively, good-to-great athletes appeared to demonstrate elements of the Hedgehog Concept. In support of the three circles of the Hedgehog Concept athletes identified (a) striving to be the best in their discipline; (b) being a hard worker and skill mastery (economic engine); and (c) having a relentless passion. Moreover, athletes discussed having an unflappable work ethic and commitment, similar to the disciplined action Collins' found in good-to-great companies. The "disciplined action" of good-to-great athletes was among the various factors which assisted in their ability to not only make the transition from good to great, but also in their maintenance of this transition. Finally, much like the flywheel analogy Collins (2001) used to describe how the transition occurred in companies, athletes described their transition as something that did not occur over night despite its appearances, but rather it was something that occurred gradually over time. Therefore, while disciplined people, disciplined thoughts, and

disciplined action, as described by Collins (2001) were not found in totality to be replicated in this study, elements of disciplined thought, disciplined action, as well as the fly wheel analogy were demonstrated in good-to-great athletes. The Collins model fell short on some of the mental and psychosocial-emotional factors that defined good-to-great athletes.

Mental Factors and Psychosocial-Emotional Changes Associated with the Good to Great Transition

Considering the phenomenon of good-to-great in elite athletes, this exploratory study followed the methodology of previous research in assessing the psychological factors of elite performers (e.g., Bloom, 1985; Côté, 1999; Gould et al., 2002; Greenleaf et al., 2001; Connaughton, et al., 2010). In-depth interviews were conducted to evaluate the factors associated with a good-to-great transition in super-elite athletes. Various mental factors and psychosocial-emotional changes were identified with the initial shift in performances and an athlete's ability to maintain the transition over many years from good to great. Specifically, the results support Gould et al.'s (2002) findings on the psychological characteristics of outstanding athletes and Gould and Maynard's (2009) findings on the psychosocial factors associated with Olympic success. However, the current study adds to our understanding of elite athletes by demonstrating that factors associated with the highest level of success also facilitate an athlete's ability to make the change from good to great. Athletes identified support and resources, and skill mastery and quality of training as contributing to their initial shift in performance, while accumulated training time, performance enhancement skills and characteristics, and motivational issues and orientation were identified as contributing to both the initial shift in performances and their ability to continue to sustain this transition.

In support of research concerning the long-term development of an elite athlete (Bloom, 1985; Durand-Bush & Salmela, 2002; Gould et al., 2002; Henriksen et al., 2010; MacNamera et al., 2010a, 2010b), three of the six good-to-great athletes attributed the accumulation of training time as assisting them in their significantly improved performances. Additionally, one athlete also cited accumulated training time as an enabler for maintaining the shift. For these athletes, the transition was identified as something that did not happen suddenly, despite its appearance, but rather occurred gradually over time. Moreover, this progression allowed athletes to acquire maturity and experience. For example, one athlete reasoned that her ability to perform consistently successfully at major championships was the result of the experience and lessons she had learned with time. She explained,

> And as the years progress I get better and it makes me a better competitor…Usually when I go to major championships, I can't sleep, I get apprehensive, I get excited and it just drains my energy and by the time the finals comes around I'm tired. But, now with my experience, I learn that I have to sleep if I'm going to compete well. I have to rest. I'd get so nervous that I wouldn't even eat. And these are the little things as you go along that helps to make me a better athlete. (Eve, ln 431-438, p.12)

This athlete was able to execute self-regulation based on the experience she had acquired over time. Considering our understandings of the psychological characteristics in super-elite athletes and the characteristics associated with Olympic success, it appears that accumulated training time enables good-to-great athletes to develop an understanding of the conditions and strategies for optimal performances. This supports the work of Bloom (1985), Csikszentmihalyi et al. (1993), and Gould et al., (2002), who have found that the psychological characteristics of elite performers have developed over time and are influenced by various factors, including

experience. Likewise, McNamera et al. (2010a, 2010b) have suggested that developing optimal psychosocial behaviors in talented athletes should be emphasized if athletes are to maximize their ability. Developed over time, they determined that psychosocial characteristics play an integral role in the actualization and maintenance of ability.

Considering the physical training associated with elite athletes, it is noteworthy that performance enhancement skills and characteristics were cited the most as influencing a transition from good to great. Specifically, good-to-great athletes spoke of using various psychological skills, such as demonstrating mental acuity, being positive, being able to focus, and being able to perform under pressure; demonstrating self-regulation, such as having a balance in life and sport, good work ethic, being a hard worker, disciplined, taking care of self, and knowing oneself; and exuding a high sport confidence. These results support the work of Gould et al. (2002), who found various performance enhancement skills and characteristics, such as mental toughness, sport confidence, positive self-talk, ability to focus, and distraction control, to be associated with Olympic champions.

Likewise, for professional baseball players, Smith and Christensen (1995) demonstrated that psychological skills predicted an athlete's ability to survive in the sport after 2 to 3 years of being obtained. In general, the value and positive impact of psychological skills on performances are well accepted in the elite athlete literature (e.g., Birrer & Morgan, 2010; Gould & Maynard, 2009; Hardy et al., 1996; Mahoney & Avener, 1977). Through the practice and implementation of various psychological skills, athletes are better positioned to achieve their desired outcome. For good-to-great athletes, it appears that they had developed an enhanced level of psychological skills and a realization of that relevancy with regards to athletic performances.

Research has shown that elite athletes, especially in individual sports, demonstrate control over their learning and improvement of a task through regulated behavior (Anshel & Porter, 1996; Cleary & Zimmerman, 2001; Jonker, Elferink-gemser, & Visscher, 2010). In my study, athletes spoke with pride as they discussed their ability to regulate their actions through control, structure, and effort as if it were a quality they demonstrated better than their competitors. For example, work ethic was a theme commonly referred to. One athlete explained how work ethic was his distinguishing factor in making the shift:

> Like I said earlier, and I don't know where I get this from - I use to go out and do motivational speaking on the different reasons why different people succeed - the athletes, the successful business people… they've got drive, they've got all this drive. I have this uncanny and it's the only non-modest thing I'm going to say about myself, work ethic. I don't know where I get it from. (Bob, ln 993-997, p.24)

Likewise, another athlete explained how her work ethic and discipline positively impacted her career. She stated,

> And when I go to training, I give all of my energy. I leave everything out there, and when I come home I just crash. These are the things that I do that helps me, that I think makes me last in this sport. I do everything. I realize when you are on top you have to do what you've always done and more. I have. My work ethic, I think is the key. Because I think as you get older you have to find different ways of staying up there and keep improving. And it's like I said, you have to do what you've always done to get there and more. (Eve, ln 1027-1033, p.25)

These results appear to support Weiner's (1972, 1985) attribution theory, whereby good-to-great athletes ascribe their success to internal, controllable, and stable factors being within

their control. Further research would need to determine whether good-to-great athletes ascribe internal, unstable, and controllable factors to their failures and setbacks.

Another widely cited umbrella theme by good-to-great athletes, believed to influence the shift from good to great, as well as to sustain this transition, was motivational issues and orientation. These findings appear to replicate Gould et al.'s, (2002) results, who also found motivational issues and orientation, which included the raw data themes of goal, dedication, and drive, as psychological characteristics associated with Olympic Champions. Describing their ability to make the shift and to maintain their improved super-elite performances, good-to-great athletes mentioned becoming goal-oriented, striving to be their best while proving other's wrong, being committed, and being able relentlessly to keep pushing forward in spite of setbacks. Comparatively, one direct comparison athlete was able to recall experiencing a poor performance at the Olympic Games and deciding thereafter no longer to be competitive in his event. He had disengaged from his goal. He explained.

> Yep, I went backwards, and I knew it. The minute I started going forward I was like, "That's it." You cannot do that. That little… That was it. I ran 10.28 [s], got to the finish line and I just put my head back "F@#&!" [laugh] The loudest… I mean everyone was screaming. I think [Competitor] just ran 9.9 something [s] and I just grabbed onto- you know there's a wall in front of us and I just grabbed onto the wall and said, "That's it." And on that day I made a conscious decision that I was no longer going to pursue the 100 m as an individual event. I was done. (Greg, ln 1165-1171, p.28)

Expanding on the understanding of elite athletes, the umbrella theme of motivational issues and orientation also include passion and spiritual faith. Considering there is a dearth of research relating to elite athletes in these areas, this was an interesting discovery. Passion

includes an insatiable pursuit for excellence, fueling good-to-great athletes to strive tirelessly for superior performances. This passion also allows athletes to continue to sustain their super-elite performances by providing a purpose and meaning for them. For example, the significance of passion was emphasized by Bob when asked, "What was your greatest disappointment?" He referenced a time when he had lost:

> I wasn't running for myself at all. And at that point I realized during my preparation, sometimes I was going to when I was going to training. I was going backwards. At one point I felt weird. I didn't have the passion. At some point I didn't even like it. But, at that time I was kind of in my bubble that I didn't know. (Chris, ln 986-990, p. 24)

Vallerand et al. (2003) defined passion as "a strong inclination towards an activity that people like, that they find important, and in which they invest time and energy" (p.757). Thus, for athletes to be passionate about their sport, it must be of some significance to them. Vallerand et al. (2003, 2008) have suggested that there are two types of passion that are the results of individuals' internalizations of their given activity or sport. The first type, harmonious passion, is the result of autonomous internalization. Individuals engage in an activity irrespective of rewards or contingencies, but rather because they choose to do so. Harmonious passion offers a balanced approach and is not disruptive to other aspects of an individual's life (Vallerand, 2003).

By comparison, the second type is obsessive passion, whereby individuals attach a controlled internal contingency to the activity. Intra and/or interpersonal pressures are perceived, resulting in a compelled feeling to engage in the activity. Obsessive passion can cause an imbalance in an individual's identity and can be disruptive, resulting in negative affects.

Vallerand et al. (2007) evaluated the effects of harmonious and obsessive passions on the performance of athletes. They found harmonious passion is a positive predictor of mastery goal

pursuits and subjective well-being, while obsessive passion is a positive predictor of mastery, performance- avoidance, and performance-approach goals. Obsessive passion offers a combination of adaptive and potentially maladaptive behavior. As such, harmonious goals are reasoned to provide a more reliable prediction of positive performance than obsessive passion. However, it is noteworthy that both types of passion can enable performance and the achievement of a goal (Vallerand, 2007). In the presence of passion, athletes are more likely to persist, even when personal costs are accrued. Additionally, passion has been found to be positively related to deliberate practice, thereby influencing the acquisition of skill and performance. Considering the psychological demands of high-intensity sports (e.g., track and field), Birrer and Morgan (2010) posited that the development of athletes in these sports should include harmonious passion. Passion, as it pertains to elite athletes, needs to be further explored, including whether harmonious or obsessive passion is more present in good-to-great athletes.

Spiritual faith was referenced by two good-to-great athletes as providing motivation and direction for them, enabling their ability to make the initial shift. For example, one athlete who had the opportunity to pursue another career successfully believed his athletic ability was a gift from God. His spiritual belief influenced his decision to pursue track and field instead, and ultimately to make the shift from good to great. He stated, "But, I thought I'd give athletics a go, and it was tied up with my faith. So, I thought that's what God wanted me to do." (Dave, ln 131-133, p.5)

Once he had made the shift from good to great, his spiritual belief appeared to be reflected in his passion for his sport. Similar to the other athletes, he had an insatiable hunger to keep improving because of his spiritual faith. He said,

> But, I think again for me, faith was an important part of that. Just because I was an Olympic Champion and World Record Holder it didn't let me off the hook of being essentially, someone who was trying to serve God. And I thought the way that I was doing that was through being an athlete. So the reason why I was doing it wasn't taken away. It wasn't as if I had achieved my goal. That's a goal you never achieve. It's just a constant way of being. So, that didn't change. If it had just been about breaking records and winning medals, I might have been satisfied with the World Championships in 'XX and never quite had the motivation to do it again. (Fran, ln 949-956, p. 23)

Researchers have found spirituality and religion to be a means of providing religious athletes some guidance, assurance, and stability in life (Coles, 1990; Stevenson, 1997; Storch, Kolsky, Silvestri, and Storch 2001). In Olympic track and field athletes, Vernacchia et al. (2000) found athletes who relied on their spirituality to remain committed in their goal pursuits and beliefs in their ability. Likewise, Stevenson (1997) found "living a "truly" Christian life and giving "true" worship to God means giving one's all in whatever situation one happens to be in. It is giving oneself and whatever talents and abilities one has fully and enthusiastically to God" (p. 251). The role that spirituality plays is multifaceted (e.g., source of confidence, motivation, and support). Certainly, in this study, when considering factors associated with the transition, spirituality was a source of motivation with endurance. Comparatively, when asked about strategies implemented to create a change in performances, spirituality was described as a source of support.

Support and resources, and skill mastery and quality of training were additional themes recognized as contributing to the transition of good to great by the majority of good-to-great athletes. However, they were not identified as contributing to sustaining the shift. The support

of the coach was overwhelmingly cited by all of the good-to-great athletes. In support of previous studies, (e.g., Côté, et al., 2007; Jowett, 2003; Gould et al., 1999; 2000; Greenleaf et al., 2001; Pensgaard and Roberts, 2000; 2002) the coach was able to provide technical knowledge, psychological skills development, and motivation. Additionally, coaches also enhanced the sport confidence of good-to-great athletes, through their belief in the athlete's ability. For example Dave stated,

> I got a lot of self-belief from his belief in me. I think it's a lonely distance being an athlete. There' a lot of pressure. There's a lot of expectations and it can be tough to do on your own… So, I think certainly, for me that was important. (Dave, ln 994-994, p.27)

Other sources of support included teammates, family, medical staff, and a sport psychologist. Similar to the coach, these individuals offered support through their belief in the athlete's ability. They were a source of stability, and in some cases they helped athletes to develop psychological skills (e.g. focusing, imagery, and positive affirmation). Gould et al. (2002) determined family, community, individual development, non-sport personnel, sport environment personnel, and the sport process all influenced the development of psychological characteristics in Olympic Champions. They found that parents and family played an integral role in the development of these Olympic Champions, providing social-emotional, financial and logistical support. Families instilled in these athletes a "can do" attitude towards success.

Resources include the environment in which an athlete trained, access to a facility, optimal nutrition, and financial means. Interestingly, the availability of finance enabled athletes to employ other resources and support (e.g. nutrition, facility, medical staff, and coach), positioning athletes further to improve their performances. For example, Chris was able to afford the expenses associated with investing in his training, while Eve acknowledged that the

expenses associated with working with a sport psychologist (which she referenced as a transitional factor) limited her continued use of this support. Another good-to-great athlete even cited going into significant debt in order to cover the costs associated with training optimally.

Social support includes the care and reliability of others for help, as well as the provision of resources to enhance the well-being of the recipient (Rees, 2007). As such, it is believed that the quality and type of social support an athlete perceives and receives can improve performances. Evaluating the psychological characteristics of Olympic track and field athletes, Vernacchia et al. (2000) also found social support systems and economic well-being to be critical components in the development of these athletes. In a sport such as track and field, where the attainment of being a world-class athlete coincides with being an adult, financial support can be a particular challenge, as fewer athletes may be inclined to receive financial support from their parents, and in some cases are parents themselves supporting their family. Often financial limitations may impede an athlete's ability to implement optimal training preparations (e.g., nutrition, massage, and physical therapy) (Heaney, O'Connor, Naughton, & Gifford, 2008). While resources were not always readily available for all good-to-great athletes, they maximized the resources they had, investing in their training.

Skill mastery and quality of training was the final umbrella theme cited by good-to-great athletes as contributing to their shift in performances. Athletes described becoming an expert in their discipline by focusing on training quality, developing and exhibiting skill mastery, and gaining proprioception. Additionally, supporting Gould et al.'s (2002) initial finding of sport intelligence, good-to-great athletes identified training knowledge and becoming a student of their sport as transitional factors. These athletes were not just going through the motions of their discipline; they were active participants. They became dedicated to mastering their discipline

technically and they used their sport intelligence to further improve their acquisition of a skill. For example, one athlete explained how, through studying films of himself and other athletes, he became analytical about his training and significantly changed his style. He said,

> I just spent the time watching video over the course of what was a great depression winter for me, because it didn't matter if I was a 100% fit, and looking at different videos of- I always modeled myself off of [Athlete] because he was the world number one XXX when I was growing up. I think he had that Eastern Bloc style. Very powerful. And I thought no, I'm not actually that kind of athlete, I'm more like [Athlete]. Much more speed based. I looked at the way he xxxx and he used the double arm shift through the phases, and I thought you know what I'll try that. That might work better. And it had a huge impact. (Dave, ln 510-517, p.14)

Closely related, reflection involves applying knowledge and experience gained previously to future goal-directed performances (Jonker, Elferink-Gemser, de Roos, & Visscher, 2012). Jonker et al. (2012) posited that athletes who practice comparing self-assessed performances against improved performances, previous performances, or the performances of others will see improvements in their training sessions and performances. Evaluating the reflection score in junior level athletes, they found that athletes who scored higher on reflection scores made the transition to senior elite level. Future studies of elite athletes should explore the attributes associated with being a student of the sport, including its relationship to skill acquisition and similar constructs such as reflection.

This study was able to distinguish between factors attributed to initiating the improved shift in performances and factors associated with sustaining the transition. While three of the factors identified with the transition were also identified with the maintenance of the shift, it is

worth considering why support and resources, as well as skill mastery and quality of training, were only associated with the initial shift in performances. As mentioned, support and resources provided direction, guidance, and a vehicle for attaining improved performances. This form of support generally came from an external source, or was externally driven. In many ways, support and resources were akin to an enabler who facilitated other factors (e.g., sport confidence, motivation, enjoyment, and training quality) and possibly created an environment of stability (e.g., athletes who moved to train with a new coach and training group). Moreover, with resources athletes were able to invest in their training. As an enabler, support and resources would play an integral role in the initiation of change.

Similarly, skill mastery and quality of training could also be considered as an enabler. At the super-elite level, especially in high intensity sports, where 100^{th} of a second can separate first from second place, precision is demanded. Perhaps the acquisition of expertise and quality of training were missing components prior to the shift from good to great, and once achieved they have become automatic. Like support and resources, skill mastery and quality of training would play a critical factor in athletes making the initial shift.

The challenge with maintaining that shift is not uncommon to athletes. Kreiner-Phillips and Orlick (1993) identified athletes' ability to maintain their best performance focus in subsequent competitions as the factor that allowed them to replicate the medal performance they attained at the Olympic Games, World Championship or World Cup. Likewise, Gould et al. (1993) found successful athletes struggled with maintaining their results due to increased demands and changes in motivational orientation. Performance enhancement skills and characteristics, and motivational issues and orientation, appear to play a central role in the

maintenance of improved performances by buffering against possible mental and psychosocial distractions and motivational decrements.

Finally, the factors associated with the transition from good to great did not appear to function in isolation. Considering the model of psychological preparation for peak performance (Hardy et al., 1996), the transitional factors identified include the five major components of the model (i.e., fundamental foundation attributes, such as spirituality, passion and goal oriented; psychological skills and strategies, such as distraction control, mental acuity; adversity coping strategies, such as attributions, automaticity, resiliency; task-specific ideal performance state, such as sport and life balance, sport confidence, competitive; and environment, such as resources and support, motivational climate, performance success). While Hardy et al. (1996) acknowledged that this may not be the only model to explain the conceptual framework of the variables influencing the performances of elite athletes, it does provide an organized basis for understanding peak performances. The results of my study provide additional support towards a unifying model of psychological preparation for sustaining peak performances.

Mental Factors and Psychosocial-Emotional Changes Distinguishing Good-to-Great Athletes from Comparison Athletes

Comparing the development of good-to-great athletes and direct comparison athletes revealed that both groups of athletes played various sports growing up, on average began their discipline at comparable ages (17.8 years for good-to-great, and 16.7 years for direct comparisons), competed in their discipline for approximately 15 years (15.5 years for good-to-great, and 15.2 years for direct comparisons), and had an average of 4.3 coaches throughout the span of their career. Thus, introduction to sport, period of involvement, and coach changes did not distinguish good-to-great athletes from direct comparison athletes. Differences were cited, in

the changes made to training, such that changes to the quality, quantity and effort of their training were acknowledged by the good-to-great athletes. Fewer direct comparison athletes reported making changes to the quality and quantity of training, and no changes to training effort were cited. This was an interesting discovery because it demonstrates that good-to-great athletes associate a greater value to effort in improving a performance than do direct comparison athletes. Likewise, it could be argued that this demonstrates support for Weiner's attributional theory, whereby the failure to make the shift from good to great is attributed to effort, an unstable factor.

A related construct to self-efficacy, sport confidence is "the belief in one's ability to be successful in sport" (Feltz, 1988, p.432). Consistent with the elite athlete literature, good-to-great athletes and direct comparison athletes reported having overall high sport confidence (8 and 10, respectively) throughout their career (e.g., Gould et al. 1993; 2002; Mahoney, Gabriel, & Perkins, 1987; Mallett & Hanrahan, 2004; Vernacchia et al., 2000). However, given the retrospective study structure, the global sport confidence scores may have been biased, resulting in higher scores. Specifically, participants are inclined to rely on current emotions, attitudes, and situations to deduce what they believe might have been a previous emotion (Côté, Ericsson, & Law, 2005). An athlete exuding high self-efficacy at the time of the interview may have reported a higher sport confidence score as they reflected on their career. Moreover, in a retrospective interview, athletes are more likely to remember positive events, which could also contribute to an elevated sport confidence appraisal (Greenleaf et al., 2001).

The situational conditions of the sport environment are dynamic in providing performance feedback (Feltz, Chow, & Hepler, 2008). These continuous changes of the sport environment will therefore influence the state sport confidence of an athlete. In the case of the direct comparison athletes, all six athletes cited moments in their career when their confidence

was not high, reflecting the state and dispositional quality of that sport confidence. Influenced by injury, competition, and past performances, direct comparison athletes discussed the relevance of sport confidence and moments in their career when they struggled to maintain a high level. As one direct comparison athlete explained,

> The last - the last few years it's funny because 2 years ago, I mean not making Worlds [Championship] and then the injury and coming back slowly, that kind of throws off your confidence sometimes… it's like- because when I came back to training there were times that I'd train and then I'd have to stay off because my quad [quadriceps] were hurting so much, you know that I can't continue to train. So, I would have a good 3 weeks of training, and then I would have to take a week and a half, 2 weeks off and slowly get back into things. You lose a little bit of confidence in that. (Kyle, ln 668-674, p.17)

Another athlete described struggling to acquire belief in his ability, because of an omnipresent self-doubt. He said,

> What didn't work was my ability, I feel to truly believe and buy into my individual performance. That didn't work, because I would try and try. But, I think going back to what we said originally, that little hair of doubt when it comes to me, my performance, Greg on the line competing against everyone else. I didn't really hold that. (Greg, ln 1099-1102, p.26-27)

By comparison, none of the good-to-great athletes reflected on a loss of confidence after making the transition from good to great. On the contrary, they discussed having an incredible, unwavering belief in their ability, buffered by the belief of their support team (e.g., coach, parents, and family) that surrounded them, their training preparation, their success in competition, comparison to other successful athletes, and modeling. As one athlete explained,

> When I went to [first Olympic Games], and when I went to [second Olympic Games] I was good. I was up in the ranks and always in the finals I would f@#! up. Because I wasn't confident, I'd try too hard and mess up. When I stepped on the line in [third Olympic Games], I didn't know I was going to win, but I knew that I was ready. I would never be any ready than I've been now. I was so prepared… In all my career the most profound thing that has ever happened is the confidence I had on the line. (Bob, ln 776-785, p.19-20)

Another athlete also said,

> My mental didn't change because from long time, even when I started that's something I was very lucky with [coach]. He reads a lot about sports psychology and how do you call that… how to believe in yourself. And that's the kind of school that I grew up with. Like there's no limit, even though everybody was saying "You guys are crazy with what you're doing. You'll never achieve that and everything." And we keep believing it, believing it, believing it; and even today if I'm not in sports, like in business that's the same approach that I have, that I apply. Yah, that didn't change at all. (Chris, ln 495-501, p. 13)

The belief in self and in one's own ability appeared to be a salient theme throughout each interview and in discussions of good to great in both the good-to-great athletes and the direct comparison athletes. While sport confidence and self-belief were referenced as directly and positively influencing performances in three of the six good-to-great athletes, every good-to-great athlete drew reference to it, indirectly through various factors (e.g., coach, spiritual faith, accumulated training time, skill mastery). Likewise, direct comparison athletes discussed its relationship with other factors and circumstances (e.g., support and resources, injury, training).

For example, when discussing making changes to training plans, Heather described the importance of belief to being successful. She said,

> So, if you are going to take on a change you have to believe in it and actually live it. Not just kind of like 'I'm going to make this change,' but it has to be so internal, so believe in that it can go nowhere but forward. There is no other direction than for it to work. And it can be something ridiculous. Like there are some people who do weird things in their training program, and I have no idea why that's working, but I feel like it's because whom ever in that training group or that athlete-coach combination or maybe just that athlete himself, they just say, "You know what, I believe this is what I need to make a change, to move forward in my career." And they live it. And you know it's not half-assed, because there's a fine line between just kinds of like going through the motion-. Because you're doing it and people on the outside might be like, "Yah, you did make that change." But, then there is a difference between really internally believing in it. Do you know what I mean? If someone was to give me just a regular glass of tap water and told me that it's the best recovery drink in the world. Now, if I drink it I'm just like, "This is regular ass tap water," but I drink it every day. Like I'm going through the motions, but it's not going to do anything for me. But, if I truly believe this is the best thing for me and this is what I need to be doing, and this is giving me everything that I need, then that regular glass ass water is going to be the best thing, and it's going to make a change. That's how I see those changes, you know, as producing an actual long lasting change. (Heather, ln 1238-1258, p.30)

While the strategies of successful elite athletes are understood, Gould and Maynard (2009) pointed out that it is unclear whether less successful athletes employ the same strategies.

This study adds to the literature (e.g., Gould, Eklund, & Jackson 1992a; 1992b; 1993) by investigating the strategies that both good-to-great athletes and direct comparison athletes implemented in an effort significantly to improve their performances. To establish a general understanding of possible differences in strategies implemented, both groups of athletes were asked a series of questions, exploring how strategies were applied (what strategies were used, when, and how they were implemented). Overall, both groups of athletes reported implementing similar strategies. Good-to-great athletes cited being influenced by the support of others, analysis of training and technical needs, performance enhancement skills and characteristics, motivational issues and orientation, environmental change, social comparison, accumulated training time, and happenstance. Direct comparison athletes cited implementing the same strategies as well as analysis of nutritional need and being influenced by negative experiences. While both groups of athletes reported implementing similar strategies to invoke a positive shift in their performances, distinction was found in the strategies they referenced as using most.

Specifically, being influenced by the support of others (48%), and analysis of training was largely reported by more good-to-great athletes. Comparatively and to a lesser extent, direct comparison athletes also reported being influenced by the support of others (24%), as well as analysis of nutritional needs (15%), using performance enhancement skills and characteristics (13%), and motivational issues and orientations (13%).

Influenced by the support of others appeared to play a major role in the good-to-great athletes through their provision of guidance and direction concerning other strategic decisions, and the coach's belief in their ability. Track and field is an individual sport, where elite athletes are older, living on their own, and sometimes even training on their own. For these athletes, they

were not alone in their journey. As one athlete explained, "You know certainly having a fantastic mentor, this guy [Coach] was really crucial. Someone, who really walked the path with me. I didn't have to develop on my own" (Dave, ln 986-988, p.24).

Likewise, direct comparison athletes also cited being influenced by the support of others who impacted their actions and decisions, in an effort to improve their performances. For example, Heather described how her coach's investment in her training made her want to train harder, ultimately improving her confidence. She stated,

> I just feel like if you prepare well, you feel it in your bone. Like if you have good practices and you've built something from the ground up. It's like building a building. You build it from the ground up and then you look at it and you know it's stable. And you know it's not going anywhere and it's everything that you've wanted. And I think that that comes from a good bond with your coach, because you know they want nothing but the best for you. And so those workouts, you know they're giving their all writing the programs, administering them; and then you give your all in those workouts. And they're there to encourage you and to help you. And so that bond becomes so tight and that preparation, they're so intertwined. And then ultimately your confidence- like my confidence comes from that. (Heather, ln 703-713, p. 18)

Direct comparison athletes also acknowledged being influenced by the support of others associated with the strategies they implemented. Further exploration of the role of an athlete's support team may provide further distinction regarding the quality and the quantity of guidance, as well as the belief perceived to be provided. Given that good-to-great athletes cited being influenced by the support of others twice as often as direct comparison athletes, it appears this group of athletes felt more supported by their close network. Moreover, social cognitive theory

postulates that people function as active agents as they interact with their environment to elicit a behavior, as opposed to being reactive (Bandura, 1997). Specifically, "people try by one means or another to get those who have access to resources or expertise or who wield influence and power to act at their behest to secure the outcomes they desire" (Bandura, 2001, p. 13). Having the support of others is not necessarily a passive circumstance. It is possible that good-to-great athletes may have been better at being proactive in finding the right support and maintaining it.

Similar to the transitional factor skill mastery and quality of training, good-to-great athletes referenced analysis of training and technical needs as strategies implemented to invoke change. Conducting self-assessments or modeling the actions of successful competitors, athletes evaluated the technical and training elements they needed to execute to be successful, and they implemented those changes. For example, one athlete said, "I sort of got analytical. So at the end of each year you sort of look back and think what can I change; what can I improve; how can I increase my motivation in training, all that sort of things" (Dave, ln 602-604, p.16). Considering that support and resources, and skill mastery and quality of training, were referenced as transitional factors, it would appear they were influenced by the support of others, and analysis of training and technical needs were successful in creating a positive change in performances. Additionally, it supports the argument that support and resources, as well as skill mastery and quality of training, are enablers of initiating transitional change.

By comparison, the additional transitional factors of performance enhancement skills and characteristics, motivational issues and orientation, and accumulated training time were not significantly cited as strategies implemented by good-to-great athletes. This implies these changes were not strategically planned and implemented. Rather they may be the result of a gradually improved progression (i.e., accumulated training time); or an inherent quality or

disposition (i.e., passion, spirituality, or goal orientation); or they may reflect the influential roles that others can offer. Perhaps the support of others indirectly provides direction concerning optimal strategic plans (e.g., motivation, goal orientation, sport confidence) to implement.

For direct comparison athletes, the analysis of nutritional needs, performance enhancement skills and characteristics, and motivational issues and orientations were the themes most commonly cited as strategies implemented. Given that performance enhancement skills and characteristics, as well as motivational issues and orientations, are psychological characteristics associated with Olympic Champions (Gould et al., 2002), direct comparison athletes demonstrate an awareness of the necessary characteristics to be successful (Gould & Maynard, 2009). Moreover, direct comparison athletes also believe that if they improved their performance enhancement skills and characteristics, motivational issues and orientation, as well as skill mastery and quality of training, and environment, they could have made the transition from good-to-great. Thus, it would appear that while they attempted to implement performance enhancement skills and characteristics, as well as motivational issues and orientation strategies, to improve their performances, they were not successful. A deeper understanding of factors impeding the direct comparison athletes' ability to successfully implement changes must be explored (e.g., method, support, belief in ability, disposition).

Other themes that emerged include environment change, social comparison, accumulated training time, negative experiences, and happenstance. Happenstance was the most surprising and new theme to emerge in the study of elite athletes. Both good-to-great and direct comparison athletes discussed the role of having a chance encounter as a strategy for change. In the case of two good-to-great athletes, they were contemplating retiring when a chance encounter with someone encouraged them to continue pursuing athletics at a higher level. In both

instances, upon having this encounter their subsequent performances began the transition from good to great. In social cognitive theory, personal agency and the essence of human nature involve people's ability to exercise control over their actions for given purposes (Bandura, 1997, 2001). Fortuitous events may appear to be independent of personal agency, however, Bandura (2001) reasons that it requires capitalization on these chance encounters. Bandura (2001) suggests, "People also make chance work for them by cultivating their interests, enabling self-beliefs and competencies" (p.12.). Additionally, individuals who are active and open to try new things can increase their exposure to fortuitous events. Ultimately, happenstances require individuals to act and make the most of those rare opportunities presented. For the good-to-great athletes in this study they were willing to move, train with a new coach, and continue to pursue their discipline, with a belief they could improve.

Exploring Good to Great through the Mental Toughness Framework

Collins' framework was a good starting point, but has limitations in its application for explaining the factors associated with the transition from good to great in athletes. This study also used a grounded theory approach in identifying the various factors associated with the phenomenon of good to great in athletes. The elite athlete literature offers a breadth of theoretical concepts associated with successful performances, and a basis towards understanding how athletes may be able to make the leap from good to great. While the results of this exploratory study provide support for previous research, it was surprising to discover that the transitional factors that were identified strongly paralleled the proposed framework of mental toughness and its development and maintenance in elite level to Olympic/World Champion level (Connaughton et al., 2008, 2010; Jones et al., 2002, 2007). It is noteworthy, that Bandura (1997) posits mental toughness to be rooted in self-efficacy stating: "Coaches look for resilient self-

efficacy in their athletes which is described in athletic circles as “mental toughness” (p. 383). There is no research evidence that shows discriminatory validity between resilient self-efficacy and mental toughness.

The factors associated with the shift from good to great, and an athlete’s ability to maintain it, fit within the four dimensions of mental toughness and their distinct attributes. Specifically, using performance enhancement skills and characteristics and within the mental toughness dimension of attitude/mindset, good-to-great athletes described having an unshakeable self-belief in their unique abilities (self-efficacy), distinguishing them from their competitors, as well as an ability to stay focused on their ultimate goal, despite personal life distractions.

Within the second dimension – training - good-to-great athletes described using long term goals (e.g.., being the best) as a source of motivation. Demonstrating personal agency, athletes were also able to control their environment. They described having a relentless work ethic, and they enjoyed pushing themselves. These attributes align with higher order themes within the umbrella of motivational issues and orientation, as well as performance enhancement skills and characteristics, which were identified by good-to-great athletes.

Similarly, the umbrella theme of performance enhancement skills and characteristics was also included in the six attributes found in the third dimension of mental toughness: competition. Athletes described controlling their environment by not being influenced by using the actions of their competitors and using the competition environment to their advantage. Additionally, good-to-great athletes were able to regulate their performances, elevating their performance when it mattered most. They had an unwavering belief in their ability to achieve their competitive goals, and an awareness and control of their thoughts and feelings. Likewise, athletes described being

completely focused and absorbed in their task at hand, while also being able to handle pressure, possibly even enjoying it.

Finally, in the fourth dimension – postcompetition -- good-to-great athletes described being able to handle failure and success. As a student of the sport, these athletes reflected on their performances to evaluate their successes and failures. Upon experiencing a setback, they mentioned having a resilient quality and being able to bounce back. Comparatively, in the face of success, good-to-great athletes recognized their success and did not rest on it; instead, they refocused for the next challenge, often setting an incrementally higher goal.

Connaughton et al. (2010) determined that athletes in the intermediate to elite level developmental phase have acquired all dimensions and attributes of mental toughness. They learn from role models, demonstrate discipline and structure, and are committed to the actions required for success in training. During the subsequent phase, the elite level to Olympic/World Champion phase, athletes are influenced by their international competition experience; they become better competitors, are familiar with optimal conditions for success, and know how to cope with challenges and demands. These dimensions and attributes acquired in the intermediate to elite level have become enhanced. They now have an incredible desire to be the best; to demonstrate superior mental skills, reflection, and self-awareness; and to have a balance in life and sport. Moreover, studying the development of mental toughness in Australian football players, Gucciardi et al. (2009) found that coaches can enhance the development of mental toughness by providing a positive coach-athlete relationship and a motivational environment, and by employing various performance enhancement skills.

This distinction between the development of mental toughness in the intermediate to elite level, and the elite to Olympic/World Champion level may be the distinction between the

development of mental toughness in good-to-great athletes and direct comparison athletes. Good-to-great athletes benefit from their competitive experience and wide support network, and they essentially have enhanced attributes of mental toughness. They are, in essence, mentally tougher than the direct comparison athletes. Additionally, once they have made the shift from good to great, good-to-great athletes also expand on their mental toughness in the maintenance phase. The maintenance phase of mental toughness, which includes preserving belief and focus, balancing life and sport, advancement in psychological skills and goals, as well as reflection, were also identified as sustaining transitional factors by the good-to-great athletes.

Interestingly, Connaughton et al. (2010) has cited belief and focus as the foundation for mental toughness development and maintenance, whereby any decrements jeopardize the development and maintenance of mental toughness. The salient theme of belief in my study seems to supports its relevance. Likewise, focus was a raw data theme for performance enhancement skills and characteristics referenced as both initiating and sustaining the shift, therefore suggesting additional support for this point.

Strengths and Weaknesses of the Study

This study has several strengths, including attending to gaps in the elite athlete literature. First, performances of elite athletes are often measured according to normative standards. In this study the performances of participants were evaluated according to both normative standards (e.g., medals and placing) and results that were athlete referenced. Using a standardized scoring table made the results between participants comparable. Furthermore, the athlete-referenced measured performances reflected an average top performance, instead of merely a season's best. This meant that athletes' performances also reflected consistency within a given year, limiting the assessment to simply an exaggerated superior or inferior performance.

Second, this study also involved within group comparison, whereby successful elite athletes were compared to less successful elite athletes. Various researchers have distinguished elite athletes from non-elite athletes (e.g., Anshel, 1995; Jones et al., 1994; Mahoney, 1989), but there is a dearth of research which has distinguished between successful and less successful elite athletes. Thus, this study furthered our understanding regarding differences within the elite population of athletes.

Related to within group comparison, the third strength of this study rests on the type of participants included in this study. Specifically, participants were a very exclusive group of super-elite athletes. Athletes included in this study competed in the Olympic Games on average three times, with half of these athletes also medaling three times at the Olympic Games, or at the World Championship, on separate occasions. This is an incredible feat which few elite athletes ever achieve, and likewise few studies are able to include such participants. Moreover, according to the competitive index for international sport established by Mitchell and Stewart (2007), track and field along with soccer are the most competitive international sports, thereby making the achievements of these athletes that much more spectacular. The competitive index for international sport was constructed by Mitchell and Stewart (2007) based on the determinants of international success in the participating sports at the Athens Olympic Games and the competing nations for each participating sport. The index of competitiveness provides a means by which comparisons can be made between different international sports and the probability for success.

Finally, the broad scope in design of this study provided a rich exploration of potential variables contributing to athletes making a shift from good to great. The good-to-great phenomenon was investigated with no presupposition, but rather was guided by the athlete's

thoughts and perceptions. Specifically, this study provided an opportunity for athletes to simply identify the various transitional factors they believed allowed them to make that leap from good to great. With this broad scope in design, the risk of overlooking potential transitional factors was limited.

Comparatively, while the study demonstrated much strength, like most studies there were also some weaknesses. First, the retrospective design of this study puts results at risk of memory degrade and recall bias. With time, memory has been found to have decreased accuracy demonstrating degrades in memory and a risk of experiences failing to be reported (Bahrick, Hall, Goggin, & Berger, 1994; Côté et al., 2005; Rubin & Wenzel, 1996). Also, as mentioned, individuals are more likely to recall more positive experiences than negative ones, and more significant events than non-significant events in their lives (Côté et al., 2005). Thus, athletes who met or surpassed their athletic objectives may have reflected only on the positive aspects of their athletic goal pursuits, forgetting any negative factors or impedances that may have been experienced. Likewise, athletes may be incorrect with accurately identifying factors that influenced their transition from good to great and sustaining it. In a retrospective study, the factors identified may be limited to factors they perceived to have made the difference. Triangulation, involving the interviewing of a coach, partner, and/or significant other may help to validate the reported results. Nonetheless, retrospective interviews are more feasible when studying elite athletes. Often access and availability provides a limitation in studying this group of participants, and retrospective interviews are less intrusive.

A second limitation was the sample size. Guest, Bunce, and Johnson (2006) conducted a study in the health science field to determine whether an optimal number of qualitative interviews existed and what that number for saturation would be. They found that by the twelfth

interview, all of the variances (codes and themes) were identified, and they suggested that in studies with a goal of understanding common perceptions and experiences of a relatively homogeneous group of individuals with common viewpoints, this may be enough. They do caution, that participants still need to be carefully selected, and if the group is heterogeneous, the data quality is poor, or the area of inquiry is diffuse or vague, 12 interviews may not be enough. This study included a heterogeneous group (good-to-great athletes and direct comparison athletes), with six participants for each group. Perhaps six additional athletes for each group might have been ideal; however, population limits in good-to-great track and field athletes would have been approached and would have significantly minimized the anonymity of athletes included in the study. While the sample size thus restricts generalizability, it does provide a rich breadth for discussion of elite athletes making the leap from good-to-great.

Similarly, a third limitation was preserving the anonymity of the participants, in particular the good-to-great athletes. The qualifications that identified good-to-great athletes were very selective, requiring athletes to have achieved consistently superior performances, which only a small pool of athletes has ever accomplished. While blocking the dates and location of significant events (e.g., Olympic Games) was performed, a track and field enthusiast may still be able to deduce which athletes were included in the study.

Finally, while the broad scope of the exploratory design of this study was a strength, it was also a weakness. Due to its expansiveness, the ability to investigate interacting variables (e.g., goal strategy types and sport confidence) was not possible. Likewise, it was equally difficult to provide a deep analysis of each theme derived. Instead, this study serves as a basis for future studies to confirm the findings, and to explore the interactions between the various transitional factors identified.

Future Research Directions

This study contributes towards understanding the phenomenon of good to great in elite athletes. While various weaknesses were identified, the strengths of this study appear to outweigh its shortcomings. As such, it offers an important understanding of the mental factors and psychosocial-emotional changes associated with making those leaps in an athlete's performances. However, there is a need for additional research to explore and expand on this study's findings.

First, given that accumulated training time played a role in an athlete's ability to transition from good to great, and both groups of athletes reported beginning their discipline at the same age, as well as competing for the same amount of time, why did accumulated training time positively impact the good-to-great athletes more? Because both groups of athletes began their journey on the trajectory of greatness as "good" elite athletes, were there differences in their experiences and development which provided good-to-great athletes the tools to successfully implement the various transitional factors? It is reasonable to wonder what developmental experiences distinguished these two groups of athletes. While we may understand the psychological characteristics and development of Olympic Champions (Gould et al., 2002), future studies should explore the developmental differences in support, psychological skills, and motivation amongst good-to-great athletes and direct comparison athletes.

Similarly, a second area future research should investigate is the difference in support networks between good-to-great athletes and direct comparison athletes. Both groups of athletes overwhelmingly referenced the integral role of support networks, especially that of a coach, as influences on their performances. Future research should explore how, if at all, the support of others differed in good-to-great athletes and direct comparison athletes. Specifically, future

studies should evaluate whether both groups of athletes received the same support, how proactive they were in garnering the support they received, the amount and type of guidance support their teams offered, as well as how useful and valid the support was that these athletes were receiving. Finally, given the role that a coach's belief appeared to play in enhancing an athlete's belief in his/her abilities, as well as the foundational role of belief in mental toughness, it appears that the good-to-great athletes may have perceived their coaches to believe in their abilities more than the direct comparison athletes. Good-to-great athletes may have benefitted from proxy efficacy. Proxy efficacy can be defined as "one's confidence in the skills and abilities of a third party or parties to function effectively on one's behalf" (Bray, Gyurcsik, Culos-Reed, Dawson, & Martin, 2001, p.426). Thus, proxy efficacy can provide a supplementary role in the development of one's own self-belief. Future studies should also compare the level of belief that good-to-great and direct comparison athletes perceive their support team has in them.

Likewise, a third area that should be explored is the relationship of mental toughness in good-to-great athletes and direct comparison athletes. As mentioned, it appears that good-to-great athletes exude a greater mental toughness than direct comparison athletes. Additional research should confirm these findings, evaluating good-to-great athletes based on the four dimensions and 13 sub-components contained within Jones et al.'s (2007) mental toughness framework.

Fourth, the limitation of evaluating interacting factors and probing deeper into the variables identified provide an area that future studies could attend to. Specifically, the concept of goals was continuously cited by participants in this study; however, what these goals were, as well as how and when they were applied, was not able to be determined. It was the intention of this study to explore this component; however, while conducting the interview, it became apparent to

the researcher that probing into this variable would require a considerable amount of time, which would have detracted from the overall exploratory scope of the study. Given that goals have been determined to play a significant role in the achievement of peak performance for elite athletes (e.g., Gould et al., 2001, 2002; Gould & Maynard, 2009; Greenleaf et al., 2001; Kriener-Phillips & Orlick, 1993; Orlick & Partington, 1988), understanding the goal strategies applied may provide further distinction in the means by which good-to-great athletes were able to make the transition successfully, and why direct comparison athletes did not. Future studies should compare the goal strategies applied by good-to-great and direct comparison athletes, to determine if and how this influenced an athlete's ability to successfully or unsuccessfully make the transition.

Fifth, following the suggestions of Hardy et al. (1996), future research should include a combination of qualitative and quantitative measures. Specifically, comparing the dispositional qualities of good-to-great athletes and direct comparison athletes may provide further insight as to whether there are foundational attributes, irrespective of development which accounts for the ability of some athletes to make the leap in their performances while others cannot. Additionally, given the salient theme of sport confidence, such measures should include assessment of the sport confidence trait in both groups of athlete.

Sixth, this study unveiled some surprising finds, including the influential role that being a student of the sport had on an athlete's ability to make the transition from good to great. Considering, Gould et al. (2002) also cited sport intelligence as a characteristic found in Olympic Champions, future studies should explore this concept in elite athletes. A better understanding of the qualities associated with sport intelligence, and a measure to assess its development should be defined. Likewise, understanding its relationship with other constructs such as skill mastery,

sport confidence and reflection may further our understanding, as to the processes by which it influences an athlete's performance.

Seventh, much like being a student of the sport, happenstance was another interesting discovery. Happenstance in good-to-great athletes appeared to intervene at the appropriate moment to place athletes on the path for success. In the career counseling literature, chance encounters and happenstances have been found to be shape job transitions and success in employment (Guindon & Hanna, 2002; Hirschi, 2010). Comparatively, Connaughton et al. (2008, 2010) found that crucial incidents (e.g., someone recognizing an athlete's talent, changing coaches, or winning a major event) characterize the transition between developmental phases in mental toughness. Often, these crucial incidents can come in the form of a happenstance or chance encounter with an individual. Further exploration may be useful regarding the prevalence of happenstance in the development of an elite athlete, and its role in athlete's making the leap from good to great.

Eighth, one of the strengths of this study was its sample of individual sport athletes competing in a closed skilled discipline. However, future research should explore good-to-great athletes in a team sport, as well as open skilled disciplines, to determine if the same findings are replicated. Likewise, this study involved disciplines where precision in technique played a large role in performance. Athletes in sports where the technical component is not as significant may reveal an alternative perspective, and should also be considered.

Finally, additional studies exploring the good to great phenomenon in athletes should also include the perspective of a coach, sport psychologist, family member, or close significant others. While this study provided a broad scope search of transitional factors identified by athletes, having these factors also identified by individuals close to the athlete speaks to research

design rigor by providing triangulation of data. The perspective of only the athlete may reveal biased results.

Practical Implications

The pursuit for improved performances is a shared goal amongst most elite athletes. Athletes earnestly train hard for improvements as small as 1cm or 100^{th} of a second that can result in a medaled performance at the Olympic Games or a major championship, or a world record. Given the value assigned to the pursuit of excellence, and the vast number of athletes who are "good" striving to become a member of the few who are "great," the results from this study provide some insightful implications.

When an athlete makes a rapid ascension in his/her performances, after years of performing inferiorly, it may appear that this change in performance was sudden. From the results, it is clear that becoming great requires years of hard work and experience. Much like the flywheel in Collins' (2001) study of successful companies, athletes engaged in disciplined, resilient effort benefit from the experience they gained over time. Moreover, passion and a desire to be the best helps to sustain the commitment needed to be successful. Athletes and coaches should be aware of the motivation surrounding an athlete's involvement in sport. Ravizza (1988) points out that athletes are more successful when their involvement in their sport is meaningful and they know why it is that they are athletes. When working with an athlete, coaches and sport psychologists should have athletes identify their passions and reasons for pursuing excellence in their sport.

Considering the parallel quality of good-to-great athletes and the mental toughness framework, athletes should engage in enhancing their mental toughness. Connaughton et al. (2010) suggested that mental toughness programs should primarily concentrate on skill mastery,

enjoyment, competitions, disciplined and structured training, and developing a paramount belief. Considering that belief and focus are foundational elements of mental toughness, awareness of the factors that influence sport confidence (e.g., past competition and training performances, positive encouragements, and modeling the performances of others) and focusing on them should be considered in the development of a mental toughness program.

From the results it is clear that an athlete's support team plays a central role in assisting an athlete to transition from good to great. A support team (including coaches, teammates, family, and sport psychologist) provides psychosocial support and has the ability to assist in the development and progression of an athlete. They are able to enhance an athlete's sport confidence, psychological skills, and motivation; assist in the acquisition of a skill; and provide guidance and direction. Coaches should be aware of their role and ability to enhance an athlete's performance beyond the scope of sport-specific knowledge. Specifically, coaches should develop a better understanding of the psychological skills and establish a systematic approach to implement it in training. Within this, coaches should also be cognizant that the belief they have in an athlete assists in furthering the development of an athlete's sport confidence and also their mental toughness. Additionally, sport psychologists should help athletes develop a sense of their own personal agency in soliciting a good support team. For example, sport psychologists can assist athletes in identifying the conditions that they perform and train best in, and the type of individuals that help to facilitate these conditions. Reflecting on their current situation, athletes may be able to gain a sense of any gaps in their support team, and begin seeking out ways to systematically improve their social support.

Conclusion

Overall, it is clear that mental factors and psychosocial-emotional changes contribute in a substantial way to an athlete's ability to make the transition from good to great. Additionally, these changes also distinguish them from direct comparison athletes. Appropriate support and resources, as well as a commitment to skill mastery and training quality, contributed to the initial changes in an athlete's performance, along with various performance enhancement skills and characteristics (e.g., psychological skills, self-regulation, and sport confidence), motivational issues and orientation (e.g., passion, goal dedication, and drive), and accumulated training time, which also all assist in the maintenance of the transition. It appears that through the support of others, good-to-great athletes are better equipped to implement the appropriate strategies to create the transition, while also analyzing technique and training needs. Comparatively, direct comparison athletes are aware of factors associated with super-elite success; however they are unsuccessful with implementing these changes. These results suggest that perhaps more support and the appropriate development of optimal psychological characteristics (e.g., sport confidence, goal orientation, and passion), as well as a mastery of skills and having an appropriate support network, could enhance their ability to have made the shift to great. Mental toughness offers a paralleling framework to the findings of this study. Future research should explore the difference between good-to-great and direct comparison athletes within the mental toughness framework. Ultimately, much like the development of an elite athlete, it appears that athletes who have been on a trajectory of "good" can in fact make the transition to "great" with the application of various mental skills and psychosocial-emotional changes. While this study offers important contributions towards understanding the good to great phenomenon in sports, more efforts must be made to understand better the processes by which athletes make this leap.

APPENDICES

Appendix A

Demographics and Historical Performances

Demographics and Historical Performances

1. *Athlete:* _____
2. *Date of Birth:* _____
3. *Age*_____
4. *Gender:* ___*Male* ___*Female*
5. *Country:* _____
6. *Discipline:* _____
7. Major championships athlete competed in:

8. Major championship results (placing and performance):

Championship	**Placing**	**Performance**	

9. How many years has the athlete competed in this event? _____ years
10. How many years has the athlete competed internationally? _____ years
11. Number of competitions the athlete competed pre-transition era: _____
12. Number of competitions the athlete competed in post-transition era: _____

13. Top 3 performances each year in pre-transition era:

_____ [year]		**_____ [year]**		**_____ [year]**		**_____ [year]**		**_____ [year]**	

14. Top 3 performance each year in post-transition era:

_____ [year]		**_____ [year]**		**_____ [year]**		**_____ [year]**		**_____ [year]**	

APPENDIX B

Good to Great in Athletics, Research Study Consent Form

Good to Great in Athletics, Research Study Consent Form

You are being asked to participate in a research study that explores athletes making the leap from good to great in athletics. You must be 18 years of age or older and have competed as an elite track and field athlete sometime between the years 1985 and 2010 on the international level.

What you will be asked to do
Should you agree to participate, you will be asked to complete an online survey (taking approximately 20-30 minutes to complete) and an interview conducted by the researcher, Nicole Forrester. In order, to ensure data is accurately collected all interviews will be audiotaped.

Benefits: This study will provide further insight into how elite athletes have been able to go from being good to being great, identifying psychological factors and actions which may have influenced this positive transition.

Risks: There are no known physical, legal or economic risks associated with this study.

Voluntary participation: Participation in this research study is voluntary. You may choose not to participate at all or decline to participate on certain questions. At any time during your participation, you have the right to discontinue your participation without penalty. Group-based findings from the study will be distributed to participants requesting such material

Confidentiality: Your participation in this study will remain private and anonymous. All Information from completed questionnaires will be stored in a secure location. You will not be identifiable in any report of research findings; research reports will provide group (rather than individual) findings. Your privacy will be protected to the maximum extent allowable by law.

Whom to contact with questions: The study is conducted by Nicole Forrester, PhD Candidate and supervised by Debra Feltz, PhD (Kinesiology Department, Michigan State University). If you have any questions or concerns about this study, please contact her by phone: 512-917-5741 or email: jumping4canada@aol.com. Or you may contact the supervisor by phone: 512-355-1824 or by email: dfeltz@msu.edu

Agreement: Your signature below means that you voluntarily agree to the audiotaping of your interview.

_____ _____
Signature

Agreement: Your signature below means that you voluntarily agree to participate in this research study.

_____ _____
Signature

APPENDIX C

Good-to-Great Athlete Interview Guide

Good-to-Great Athlete Interview Guide

This interview will last approximately one hour. The interview will be audio taped and transcribed. All information from completed questionnaires will be stored in a secure location and your participation in this study will remain private and anonymous. Do you have any questions?

Thank you for your willingness to participate and be interviewed. I am completing my PhD in the area of Sports Psychology with an interest in the psychology of excellence. For my dissertation I will be looking at athletes who are able to make the leap from good to great such as yourself. You've had a very amazing career, and it's an honor to have you involved in my study. So, I'm going to start by asking a little about yourself?

Introduction-background Information

1. Can you tell me a little about yourself? How would you describe yourself as a person? (In three to five words how would you describe yourself?)

2. How would you describe yourself as an athlete?

3. What sports did you play growing up?

4. How did you get started in track & field (e.g. at what age, what events, when did it become serious, why?)

5. How many years did you compete in the ____ [track & field discipline]?

6. When did you first realize you were talented in ____ [track & field discipline]?

Moving from Good to Great

1. We often hear about the term Good to Great, what does that mean to you?

2. When do you think you made that transition from Good to Great, in your athletic career?

3. Looking at your past performances it would appear ____ [transition point year] was when you went from good to great? Would you agree with that?

4. Is it safe to say your transition year was ____, with pre-transition occurring between ____ to ____ and post-transition occurring ____ to ____?

5. Who was/were your coach(es) during the years before your athletic career? (Before transition and after your transition point?)

6. How much time did your training change (e.g., quality, quantity, and effort) throughout your athletic career? (During the era of pre-transition? And post-transition?)

Factors Associated with Transition

1. What do you see as the top five factors that contributed to or caused the upward shift in your performance between the years ____ [transition point year] and after [post-transition years]?

2. Now let's return to each of those five factors, given 100 points to share amongst these factors, how much point would you allocate to each factor?

3. Tell me some more about your top two or three factors you mention. Why were these factors important? (Could you please elaborate on the [top two or three] factors? Can you give me specific examples that illustrate the factor?)

4. Did you make a conscious decision to initiate a major change or transition during your athletic career to further improve your performance? When? Why?

    a. To the best of your recollection, when did you begin to make the key decisions to initiate a major change or transition to further improve your performance? (what year, approximately)?

    b. What sparked the decision to undertake a major change?

5. How did you go about making these decisions and strategies during your athletic career?

6. What types of athletic goals did you have before____ [transition point year] (i.e., long term, short term; technical; outcome; performance)?

7. What types of athletic goals did you have in ____ [transition point year] and after (i.e., long term, short term; technical; outcome; performance)?

8. Did you set goals for each practice session? What type (i.e., long term, short term; technical; outcome; performance)? Did these change pre-transition and post-transition?

9. What was the role, if any, of your coach any outside supporters and advisors in making the key decisions?

10. On a scale of one to 10, what confidence did you have in the decisions at the time they were made, before you knew their outcome? (Ten means you had great confidence that they were very good decisions with high probability of success. One means you had little confidence in the decisions; they seemed risky – a roll of the dice.)

a. [If athlete had a confidence of 6 or greater:] What gave you such confidence in the decisions?

b. What kept you from having higher confidence in your decision?

11. What did you try during the transition that didn't work?

12. Given your entire athletic career, what was your greatest disappointment?

13. Given your entire athletic career, what was your greatest thrill relative to your sport?

14. Many athletes undertake change programs and initiatives, yet their efforts do not produce lasting results. One of the remarkable aspects of your transition is that it lasted. It was not just a short-term upswing. I find this extraordinary. What were the primary factors in the lasting of the transition far beyond the first few years?

15. We will be comparing yourself to comparison athletes, who were in your event at the time of your transition but – unlike you – did not show a significant and lasting shift in performance. What do you believe was different about yourself that enabled you to make this transition? Other athletes could have done what you did, but didn't, what did you have that they didn't?

Interview Wrap-up

1. If you had the opportunity to make recommendations to talented athletes who want to achieve sustainable great performances, what would you suggest?

2. I have no further questions. Is there anything else you would like to mention about transitioning from Good to Great? Is there anything in general you'd like to add or ask about before we finish the interview?

APPENDIX D

Direct Comparison Athlete Interview Guide

Direct Comparison Athlete Interview Guide

This interview will last approximately one hour. The interview will be audio taped and transcribed. All information from completed questionnaires will be stored in a secure location and your participation in this study will remain private and anonymous. Do you have any questions?

Thank you for your willingness to participate and be interviewed. I am completing my PhD in the area of Sports Psychology with an interest in the psychology of excellence. For my dissertation I will be looking at athletes who are able to make the leap from good to great such as yourself. You've had a very amazing career, and it's an honor to have you involved in my study. So, I'm going to start by asking a little about yourself?

Introduction-background Information

1. Can you tell me a little about yourself? How would you describe yourself as a person? (In three to five words how would you describe yourself?)

2. How would you describe yourself as an athlete?

3. What sports did you play growing up?

4. How did you get started in Track & Field (e.g. at what age, what events, when did it become serious, why?)

5. How many years did you compete in the ____ [track & field discipline]?

6. When did you first realize you were talented in the ____ [track & field discipline]?

Moving from Good to Great

1. We often hear about the term *good to great*, what does that mean to you?

2. Do you think you made that transition from *good to great*, in your athletic career? (When?)

3. If so:
    a. Is it safe to say your transition year was ____, with pre-transition occurring between the years ____ to ____, and post-transition occurring between ____ to ____?

    b. Who was/were your coach(es) during the your athletic career? (Before transition and after your transition point?)

c. How much time did your training change (e.g., quality, quantity, and effort)? (During the era of pre-transition? And post-transition?)

4. If not:

    a. Who was/were your coach(es) during your athletic career? And when?

    b. How much did your training change (e.g., quality, quantity, and effort) throughout you athletic career? Did this change (from the beginning to the end of your career)?

Factors Associated with Performance

1. What do you see as the top five factors that contributed to your best performances throughout your athletic career?

2. Now let's return to each of those five factors, given 100 points to share amongst these factors, how much point would you allocate to each factor?

3. Tell me some more about your top two or three factors you mention. Why were these factors important? (Could you please elaborate on the [top two or three] factors? Can you give me specific examples that illustrate the factor?)

4. Did you make a conscious decision to initiate a major change or transition during your athletic career to further improve your performance? (When? Why?)

    a. To the best of your recollection, when did you begin to make the key decisions to initiate a major change or transition to further improve your performance? (What year, approximately)?

    b. What sparked the decision to undertake a major change?

5. How did you go about making these decisions and strategies during your athletic career?

6. Did you set specific goals for yourself with respect to your event?
    a. What type (i.e., long term, short term)?
    b. Did you set goals for each competition?
    c. Did you set goals for each practice session? What type?

7. What was the role, if any, of your coach and any outside supporters and advisors in making the key decisions?

8. On a scale of one to 10, what confidence did you have in the decisions at the time they were made, before you knew their outcome? (Ten means you had great confidence that they were very good decisions with high probability of success. One means you had little confidence in the decisions; they seemed risky – a roll of the dice.)

    a. [If athlete had a confidence of 6 or greater:] What gave you such confidence in the decisions?

    b. What kept you from having higher confidence in your decision?

9. What changes did you try that didn't work (or improve your performance)?

10. Given your entire athletic career, what was your greatest disappointment?

11. Given your entire athletic career, what was your greatest thrill relative to your sport?

12. Many athletes undertake change programs and initiatives, yet their efforts do not produce lasting results. For athletes who are able to make a transition that is lasting, what do you believe is necessary to makes this possible? What do you believe are the primary factors in the lasting of the transition far beyond the first few years?

13. You've had an amazing career. Knowing what you know now, do you believe you could have done anything different to further improve your performances to an even greater level? Or do you believe you maximized your potential? If so, what would that have been?

Interview Wrap-up

1. If you had the opportunity to make recommendations to talented athletes who want to achieve sustainable great performances, what would you suggest?

2. I have no further questions. Is there anything else you would like to mention about transitioning from Good to Great? Is there anything in general you'd like to add or ask about before we finish the interview?

APPENDIX E

Themes and Quotes of All Participants

Participant Themes and Responses

Codes following each individual response indicate the (1) identification code assigned to the participant; (2) line(s); and (3) page number(s) in the individual transcript where the quote can be located.

General Dimension: Factors Influencing the Shift from Good to Great

- Umbrella Theme: PERFORMANCE ENHANCEMENT SKILLS AND CHARACTERISTICS
    - Sub-Theme: Psychological Skills
        - Able to focus

1. I focused on my body. I focused on the small technical aspects of what the race is. I studied people. I studied some of the guys before me, somewhat. And I kind of took it seriously. (Adam, ln 584-586, p. 15)

2. More focused, more disciplined. (Adam, ln 590, p.15)

3. I have to focus on this. (Adam, ln 624, p.16)

4. .. that allowed me to be completely and totally focused. Completely and totally focused and to be disciplined. (Adam, ln 626-627, p.16)

5. I kind of live in a museum in my head and also in my physicality, and one of the things I've always done, if you have everything and it has its place it means that you have a lot more room to absorb information as well as… it's almost like buying more things. If you live in an empty place… If you live in an empty apartment then you can actually walk in and go "Okay, this would fit here. This would fit here. And that would fit there." So, I kind of did that with my mind. (Adam, ln 618-623, p.16)

6. I can concentrate more now. (Eve, ln 431-432, p.12)

7. You have to stay focused and driven and have the right mindset in your own lane because there are so many distractions out there. (Fran, ln 347-349, p.10)

- Psychological skills training

    1. The year before last I was lucky enough, I worked with a professional sports psychologist.… He has worked with a lot of golfers and tennis players and that kind of stuff. So, after coming back from my surgery on this leg, my coach thought I needed help and it has helped me significantly. My training has improved since then and it has also helped with my competition. (Eve, ln 574-582, p.15)

    2. We covered almost everything…Focus, concentration, visualization, all kinds of things we worked on… imagery… we did a lot of things. It was just so intense. (Eve, ln 586-591, p.15)

    3. For me, the most gains I've had from working with [Sport Psychologist] are being able to compete under pressure. Being able to put together your best performance when it matters most. I think that's where I've gained it, because I've been able to turn the pressure into pleasure and he kind of taught me how to do that, how to make it fun. And actually, that has given me a few more years in the sport. Because after a while you find that you're not loving it anymore, and when you find that you start making it fun and not so much a job, it becomes easier. And even with training too, he has taught me how to make my training more fun. Just enjoy. (Eve, ln 609-616, p.16)

- Mental Acuity

    1. I think I'm mentally tougher and I've brought the psychological aspects into my competition. (Eve, ln 448-449, p.12)

    2. You have to stay focused and driven and have the right mindset in your own lane because there are so many distractions out there. (Fran, ln 347-349, p.10)

- Perform under pressure

    1. I think I'm a more mental athlete now too. I use to break under pressure. I use to fear competition and that kind of stuff. Now I'm more competitive. I can concentrate more now. I'm more in control of my competition. And as the years progress I get better and it makes me a better competitor. (Eve, ln 429-432, p.12)

    2. For me, the most gains I've had from working with [Sport Psychologist] are being able to compete under pressure. Being able to put together your best performance when it matters most. I think

that's where I've gained it, because I've been able to turn the pressure into pleasure and he kind of taught me how to do that, how to make it fun. And actually, that has given me a few more years in the sport. (Eve, ln 609-613, p. 16)

- Sub-Theme: Self-regulation

  - Good work ethic

    1. Well, in my case I could say technique, of course work ethic, invest in my training. (Chris, ln 480-481, p.13)

    2. The work ethics, I could say and probably you remember, [coach] had this saying "Its money in the bank." It's money you are putting in the bank when these guys were like, "Oh, shit that's hard, that's this, that's that, that's tough." [Coach] was like, "That's money you're putting in the bank! The more money you put in the bank, at the end you're going to go to the bank and you're going to have a big cash." But, if you're not ready to put that work, that sacrifice, or call it whatever you want, because it's hard, because you know you're going to have cramp and everything, forget it. You're not making any investment. (Chris, ln 540-547, p.14)

    3. To me it's all the same; because to me if you miss one or the other, to me it doesn't work. I mean if somebody they can do great things and he doesn't work, it's not going to work. (Chris, ln 507-509, p.14)

    4. Like the same time, I saw athletes also with great talent but in their head, forget it; work ethics, forget it. They're going to do okay, but they're not going to achieve the potential they have to achieve. (Chris, ln 514-516, p.14)

  - Discipline

    1. I think I became more disciplined. (Adam, ln 584, p.15)

    2. More focused, more disciplined. (Adam, ln 590, p.15)

    3. Completely and totally focused and to be disciplined. (Adam, ln 626-627, p.16)

  - Balance in life & sport

1. Well, I think the first one is probably balance in my life. It's all balance because I think that's one of the things I've always known (and [coach] and I use to always talk about this a bit). I kind of live in a museum in my head and also in my physicality, and one of the things I've always done, if you have everything and it has its place it means that you have a lot more room to absorb information as well as… it's almost like buying more things. If you live in an empty place… If you live in an empty apartment then you can actually walk in and go "Okay, this would fit here. This would fit here. And that would fit there." So, I kind of did that with my mind. From relationships- I mean I had a child from XXXX, so I said I have to support my child, but I have to focus on this; and then my parents, [coach], my staff and my team - so that's the first thing I had to do. And [coach] with that that allowed me to be completely and totally focused. Completely and totally focused and to be disciplined… That was the balance. The right team- so there's a bunch of little things, little factors. (Adam, ln 616-630, p.16)

2. Right, yes. And also actually, and this is probably the most important actually, was creating a balance for my life. [Coach] use to always say, "Go clean out your closet." So creating a balance for my life. (Adam, ln 609-611, p.16)

- Hard worker

1. And you've got to work your ass off. There's no substitution for working your ass off. No drugs, no techniques… there's nothing new in the world. You have to work your ass off. And that's it. And you're not going to work your ass off unless you love what you are doing… (Bob, ln 1169-1172, p.28)

2. My type of training is very good. It's very hard, but it has helped me significantly. We do a lot of over distance training and I think that's helped me to be a stronger athlete. My acceleration is usually my strength, and I know that comes from my training. When I pull away from the field after hurdle six, I know that's my 300 [m] and 400 [m] which a lot of athletes are not willing to run. All the sprint hurdlers, tell them to run a 400 [m] or a 300 [m] and they're not going to do it. But, I do it because I know that this is what is going to give me an edge… And I think that's what separates our program from a lot, because as I said not a lot of people are willing to do it, and because

you know that if you do it, it will give you that edge you just brace yourself and do that…(Eve, ln 561-569, p.15)

- Raw Data Theme: Sport confidence

1. My mental didn't change because from long time, even when I started that's something I was very lucky with [coach]. He reads a lot about sports psychology and how do you call that… how to believe in yourself. And that's the kind of school that I grew up with. Like there's no limit, even though everybody was saying "You guys are crazy with what you're doing. You'll never achieve that and everything." And we keep believing it, believing it, believing it; and even today if I'm not in sports, like in business that's the same approach that I have, that I apply. Yah, that didn't change at all. (Chris, ln 495-501, p. 13)

2. I mean at the same time if you don't believe it, I mean I've seen some people go into a championship or whatever, and whatever the goal they have, if they don't truly believe it, it's not going to work. (Chris, ln 509-511, p.14)

3. Like the same time, I saw athletes also with great talent but in their head, forget it; work ethics, forget it. They're going to do okay, but they're not going to achieve the potential they have to achieve. (Chris, ln 514-516, p.14)

4. Because lets say I'm on the starting line, seeing all the times that they're running. You see all the crowd, the camera and everything, if you don't have confidence in yourself that you're going to do it, you're going to do the show, then you're going to crack. You're going to choke. There's no way. You're not going to go through it. And especially in the 100 [m], you know all these guys try to intimidate you and everything, I mean forget it. Forget it. There's no way. (Chris, ln 521-526, p.14)

5. Being able to put together your best performance when it matters most. I think that's where I've gained it, because I've been able to turn the pressure into pleasure and he kind of taught me how to do that, how to make it fun. And actually, that has given me a few more years in the sport. Because after a while you find that you're not loving it anymore, and when you find that you start making it fun and not so much a job, it becomes easier. And even with training too, he has

taught me how to make my training more fun. Just enjoy. (Eve, ln 610-616, p.16)

6. I think I'm a more mental athlete now too. I use to break under pressure. I use to fear competition and that kind of stuff. Now I'm more competitive. I can concentrate more now. I'm more in control of my competition. (Eve, ln 429-431, p.12)

7. That's kind of how all those things that I said there, having that faith, having that drive and having that belief has carried me through some hardship. (Fran, ln 609-611, p.16)

8. It was a reality for me. I mean I was good… and I'm going through the rounds and I know this is something I can do. And you don't always have everyone behind you backing you up 110%, but as long as the individual believes in themselves, and they think it's possible, especially with hurdles, anything is possible. There's 10 hurdles in the way, *anything* can happen in that race, and you have to keep that in mind. (Fran, ln 343-347, p.10)

9. And that's really where it came from because everyone kept saying, "Oh, you're the underdog. You're the underdog."

   And then it's like, "I'm here to stay, kind of deal." (Fran, ln 354-357, p.10)

- Umbrella Theme: RESOURCES AND SUPPORT
  - Sub-Theme: Support
    - Coach

1. From relationships- I mean I had a child from XXXX, so I said I have to support my child, but I have to focus on this; and then my parents, [coach], my staff and my team - so that's the first thing I had to do. And [coach] with that that allowed me to be completely and totally focused. Completely and totally focused and to be disciplined. To be able to walk into practice and everything that [coach] said… everything that [coach] said and also every time [therapist] touches my body it was almost like healing. That was the balance. The right team- so there's a bunch of little things, little factors. (Adam, ln 623-630, p.16)

2. Now that we've talked about it, everything revolves around the environment you're in, like the coach, your training partners. (Bob, ln 843-844, p. 21)

3. My mental didn't change because from long time, even when I started that's something I was very lucky with [coach]. He reads a lot about sports psychology and how do you call that… how to believe in yourself. And that's the kind of school that I grew up with. Like there's no limit, even though everybody was saying "You guys are crazy with what you're doing. You'll never achieve that and everything." And we keep believing it, believing it, believing it; and even today if I'm not in sports, like in business that's the same approach that I have, that I apply. Yah, that didn't change at all. (Chris, ln 495-501, p. 13)

4. I developed a close relationship with my physio, who was also a weight lifter himself. And he sort of oversaw my weight lifting, and he was sort of like a mentor to me, another person who helped me with my technical coaching. So, I sort of changed my coaching setup around the time I made my breakthrough. I think that was partly my maturing as an athlete; and knowing what I needed and kind of looking for a different coaching set up. (Dave, ln 371-376, p.11)

5. You know certainly having a fantastic mentor, this guy [Coach] was really crucial. Someone, who really walked the path with me. I didn't have to develop on my own… (Dave, ln 986-988, p.24)

6. I got a lot of self-belief from his belief in me. I think it's a lonely distance being an athlete. There' a lot of pressure. There's a lot of expectations and it can be tough to do on your own… So, I think certainly, for me that was important. (Dave, ln 994-994, p.27)

7. Coaching is definitely, well plays physical and mental. Someone can help you mentally strong and believe in yourself. You couldn't get through certain levels, with certain things, and certain times when people have said things. I'm pretty good at just letting things go in one ear and out the other when it comes to drama, because I don't like drama. I just wipe that away. And [Coach] has just been a great help in that area when it comes to just focusing on the task at hand… Basically coaching helps you out physically and mentally. Mentally, when it comes to all the side things which comes along with sports;

but physically, being physically ready to be healthy, ready to run, and compete, and put myself on that world levels. It's what this whole things is about, going from good to great. (Fran, ln 644-653, p.17)

8. Top five factors would definitely be me as an individual being focused and driven. Like the drive that you have the determination, coaching, facilities… nutrition and I guess not to lose focus on what you are doing. (Fran, ln 520-522, p.14)

- Medical Staff

1. …and also every time [therapist] touches my body it was almost like healing. (Adam, ln 628-629, p.16)

2. Now that we've talked about it, everything revolves around the environment you're in, like the coach, your training partners. You can break all this down and get five out of it. They're all the same thing. Like your support staff, your massage, like anything that's there which is your environment. (Bob, ln 843-846, p.21)

3. Well, in my case I could say technique, of course work ethic, invest in my training. I mean to me when you get to that level its sport but at the same time its business. I mean of course to have longevity I knew I had to invest in my massage, chiropractor and all that stuff. Very expensive. Most of the time I was travelling and doing those crazy things I had my team with me. And this is not cheap. And I was like if I want to survive all this training and stuff, I need to have a team, and that's why I think I had the good longevity and make the difference in the performance. I would say it was those three factors. (Chris, ln 482-487, p.13)

4. Now a days, it is easier because I have more support, and we have more physiotherapists. (Eve, ln 417-418, p.12)

5. I use to get a lot of injuries, because then it was a small group and I run the hurdles, so you know we don't get a lot of money, so I'd have injuries and I would just run with them. Now a days it is easier for me because we have a lot more physios and medical team to help keep me injury free, even though I'm older. Because I can take care of these injuries, I can still go and things don't accumulate anymore…(Eve, ln 418-422, p.12)

- Sports Psychologist

    1. Yah, and the mental-. The year before last I was lucky enough, I worked with a professional sports psychologist.… He has worked with a lot of golfers and tennis players and that kind of stuff. So, after coming back from my surgery on this leg, my coach thought I needed help and it has helped me significantly. My training has improved since then and it has also helped with my competition. (Eve, ln 574-582, p.15)

    2. I probably should. I'm probably going to call him [sport psychologist] if I have the energy to talk to him after this, because I need him like right now. But, it was kind of expensive. You know those kinds of people cost a lot of money. (Eve, ln 595-597, p.16)

    3. We covered almost everything…Focus, concentration, visualization, all kinds of things we worked on… imagery… we did a lot of things. It was just so intense. (Eve, ln 586-591, p.15)

- Teammate(s)/Training Partner (s)

    1. And knowledge that not only [Coach] had but, [Athlete] and even the other athletes. Because we use to, basically, coach each other at the same. Because we would be watching each other… it could be hurdles or be run like sometimes [Coach] is not there and we just wait ... (Bob, ln 846-849, p.21)

    2. Now that we've talked about it, everything revolves around the environment you're in, like the coach, your training partners. (Bob, ln 843-844, p. 21)

- Family

    1. I mean having my husband there to support me has been huge. I mean that too, when you go away to track meets and you have somebody, the minute you get on Skype or calling, "Why haven't you called me? I've been worried about you!" (Fran, ln 658-660, p.17)

    2. But, my parents told me, "Don't worry everything happens for a reason. It'll work itself out." I was devastated. I didn't want to hear that. But, God willing that's what gave me the drive to come back

stronger for the next year. I mean everything that's happened hasn't been easy. (Fran, ln 597-600, p.16)

- Sub-Theme: Resources

  - Environment

    1. Now that we've talked about it, everything revolves around the environment you're in, like the coach, your training partners. You can break all this down and get five out of it. They're all the same thing. Like your support staff, your massage, like anything that's there which is your environment. (Bob, ln 843-846, p. 21)

    2. I'd say Number 1, environment. Actually, optimal training environment over there [Britain]. (Bob, ln 508, p.14)

    3. The people- and even when we went to the stadium sometimes --. We never use to compete at the same time. [Athlete] had a different manager then me. He'd be off in Germany and I'd be home training. And I'd be off somewhere and he'd be home training. So sometimes, we didn't train together. We still had the same program. So, I remember once going to the track on a Sunday, because I told you we train everyday (and I didn't know this at the time), it was the Olympic year, and [Athlete] is like the King there, everybody knows him. It's Cardiff. It's a small place. We go to the stadium and the manager - the lady that lets you in and out of the stadium - they were just closing up. Its Sunday morning 12 o'clock. They close at 12 o'clock on Sunday. I had no idea. And [Athlete's] dad drove me there. So, we go in and they say, "Do you know we are closed?"

       And I'm like, "No big deal. I just won't train today."

       And they said, "No, no, no. You can't do that." [Athlete's] dad was there and they *stayed* with me for 2 hours and then drove me home. Like everything was so perfect. You know what I mean? That's what I mean… every little thing. There are so many people that had an influence on me being successful that year. Every little thing like that, because that's the kind of people-- they don't care if you are Welch or your -- they just loved track and they wanted to see you do well. (Bob, ln 919-919, p.23)

    4. I just think all of the factors, being five or ten, you probably can break them down to a million different factors, are as important as the next. I don't think there is a greatest and a least. From the coach to the

training group to the massage therapist… there is so many different things in that time that are so important. Everything was just important that year. (Bob, ln 890-894, p.22)

- Financial - Invest in Training

1. I went into debt in the Olympic year because [training partner] expected me to travel everywhere. I don't know where I got the money because I wasn't making any money in track. I went a $100,000 into debt because I had to go travel with them, I had to support myself. But, whatever I had to do, I was going to do it. And I'll find a way later. (Bob, ln 1069-1073)

2. Well, in my case I could say technique, of course work ethic, invest in my training. I mean to me when you get to that level its sport but at the same time its business. I mean of course to have longevity I knew I had to invest in my massage, chiropractor and all that stuff. Very expensive. Most of the time I was travelling and doing those crazy things I had my team with me. And this is not cheap. And I was like if I want to survive all this training and stuff, I need to have a team, and that's why I think I had the good longevity and make the difference in the performance. I would say it was those three factors. (Chris, ln 482-487, p.13)

3. The work ethics, I could say and probably you remember, [coach] had this saying "Its money in the bank." It's money you are putting in the bank when these guys were like, "Oh, shit that's hard, that's this, that's that, that's tough." [Coach] was like, "That's money you're putting in the bank! The more money you put in the bank, at the end you're going to go to the bank and you're going to have a big cash." But, if you're not ready to put that work, that sacrifice, or call it whatever you want, because it's hard, because you know you're going to have cramp and everything, forget it. You're not making any investment. (Chris, ln 540-547, p.14)

4. I probably should. I'm probably going to call him [sport psychologist] if I have the energy to talk to him after this, because I need him like right now. But, it was kind of expensive. You know those kinds of people cost a lot of money. (Eve, ln 595-597, p.16)

- Nutrition

    1. The years before XXX, I would say I just got stronger as an athlete. Before that… I lost more weight. I was kind of heavy. Definitely, I lost weight. Because I use to eat badly. There was no kind of focus or concentration. By just changing my diet and being exposed to a more concentrated kind of training, I think that help me to make the transition. (Eve, ln 392-396, p.11)

    2. Well, nutritionally if you don't have the right supplements, you don't have the protein, you don't have the stuff to help your body recover from hard workouts, then you are just breaking yourself down. But, if you are healthy you're able to withstand and hopefully fight off future injuries by being smart, and eating, and taking care of yourself health wise. (Fran, ln 638-642, p.16-17)

    3. Top five factors would definitely be me as an individual being focused and driven. Like the drive that you have the determination, coaching, facilities… nutrition and I guess not to lose focus on what you are doing. (Fran, ln 520-522, p.14)

- Facility

    1. But, at the same time if you don't have a good facility, where are you going to train? That kind of leaves you stuck also. (Fran, ln 570-572, p. 15)

    2. Top five factors would definitely be me as an individual being focused and driven. Like the drive that you have the determination, coaching, facilities… nutrition and I guess not to lose focus on what you are doing. (Fran, ln 520-522, p.14)

- Umbrella Theme: SKILL MASTERY AND QUALITY OF TRAINING

    - Sub-Theme: Skill mastery

        - Improvement in training regime

            1. And I kind of took it seriously… Technically… like mastery… trying to master the skill, honing it. (Adam, ln 586-592, p. 15)

2. I think change in training regime, with an emphasis on more quality, so I think that was it. (Dave, ln 445-446, p.12)

3. The changes, the changes were technique and training regime. I think those were the two things that changed, but you'd also factor in accumulation of training over numerous years as an important factor. (Dave, ln 502-504, p.14)

4. And I had a really bad [inaudible] because I had a really bad virus and I was affected physically for quite a long time. So, I went into 'XX preparation season not quite sure I was 100% and actually trained a lot less. Which paradoxically ended up being en epiphany for me, because I realize I actually worked better on a lower training load. High intensity, but a much lower training load, with recovery being important. (Dave, ln 263-268, p.8)

5. By just changing my diet and being exposed to a more concentrated kind of training, I think that help me to make the transition. And as I progressed I got stronger, because remember I had never been exposed to any kind of hard training before. I got stronger each year, and I get technically more sound. (Eve, ln 394-398, p.11)

6. Every year there is something he improves upon in the hurdles, so I was able to keep improving. And he's always finding ways to get me to keep improving, either by getting me stronger, or getting me faster, or improving on my technique. (Eve, ln 398-401, p.11)

7. Concentration meaning, more studied or more… more specific kind of training. (Eve, ln 406, p.11)

- Mastery of technique

1. I focused on the small technical aspects of what the race is. (Adam, ln 584-585, p.15)

2. Putting together races too. Putting together races because there's always three segments. So, trying to put the perfect race together, that's really the focus. You know physically pushing my body in practice. (Adam, ln 600-602, p16)

3. …what we did is we actually jumped, and we concentrated more on our trail leg, not our lead leg. It made all the difference in the world. So, one slight change like that. Like it was a huge technical change

but it wasn't like I was just working on it, like these guys do with trail leg drills forever. It was like, focus on this instead of this. Done! And once I did that, it completely changed my… everything. It changed my time, my everything. (Bob, 714-719, p.18)

4. Well, in my case I could say technique, of course work ethic, invest in my training. I mean to me when you get to that level its sport but at the same time its business. (Chris, ln 480-481, p.13)

5. So you know the only thing, I mean to say for myself to go from good to great, the only thing I need to think about is just breathe, technique, that's it. The rest will follow. (Chris, 608-609, p.16)

6. My technique improved dramatically in XXXX. I think that made a big difference. And in fact, I was never able to recreate that in any of my subsequent seasons, and I think had I done that- there were years where I was in just better shape which my technical package wasn't as good. (Dave, ln 449-451, p.12)

7. The changes, the changes were technique and training regime. I think those were the two things that changed, but you'd also factor in accumulation of training over numerous years as an important factor. (Dave, ln 502-504, p.14)

8. Every year there is something he improves upon in the hurdles, so I was able to keep improving. And he's always finding ways to get me to keep improving, either by getting me stronger, or getting me faster, or improving on my technique. (Eve, ln 398-401, p.11)

- Proprioception

1. I focused on my body. (Adam, ln 590, p.15)

2. Also I was running just to run. Okay I ran fast or whatever, but I couldn't tell you my feeling - at 20 m this is how I felt - I had no clue. But, from that time I could tell you "Okay at 20 m this is what I did, this is the mistake, at 80 m…" I could feel it, you know? I could explain what was going on. (Chris, ln 593-596, p.15-16)

3. And at the same time I had sort of acquired an intuitive sense if my training needed to change. My sessions weren't originally written

down. I followed them day by day, week by week. I think about 6 or 7 years into my career (so I was in my late 20's around when I started to break the world record) it became much more dynamic and I think I knew my body well - what I responded well to, what I didn't. (Dave, ln 79-84, p.4)

- Sub-Theme: Student of sport

  - Study other athletes

    1. I studied people. I studied some of the guys before me, somewhat. (Adam, ln 585-586, p.15)

    2. I just spent the time watching video over the course of what was a great depression winter for me, because it didn't matter if I was a 100% fit, and looking at different videos of- I always modeled myself off of [Athlete] because he was the world number one XXX when I was growing up. I think he had that Eastern Bloc style. Very powerful. And I thought no, I'm not actually that kind of athlete, I'm more like [Athlete]. Much more speed based. I looked at the way he xxxx and he used the double arm shift through the phases, and I thought you know what I'll try that. That might work better. And it had a huge impact. (Dave, ln 510-517, p.14)

  - Analytical of training

    1. Putting together races too. Putting together races because there's always three segments. So, trying to put the perfect race together, that's really the focus. (Adam, ln 600-601, p.16)

    2. I think I was very analytical of my training performance, mostly in my training. And at the same time I had sort of acquired an intuitive sense if my training needed to change. (Dave, 79-80, p.4)

- Sub-Theme: Training knowledge

    - Training knowledge

        1. Number 2, knowledge of training probably. If I look at what we did over there and how I was coached and what we did here, these guys, it's like kindergarten here compared to how I was training over there…. (Bob, ln 509-511, p. 14)

        2. I just think -- the main thing, we try to complicate things way too much. Keep everything real simple - be it training, the way that we are coached, athletic… don't create the wheel. (Bob, ln 1166-1168, p.28)

- Umbrella Theme: MOTIVATIONAL ISSUES AND ORIENTATION

    - Raw Data Theme: Spiritual belief

        1. I think… Yah, as I said earlier on I think my faith undergirded everything that I did. I was first and foremost a Christian, not an athlete. So, yah it was the reason why I did what I did. It was a big part of my motivation. So, yah I would add faith to that... Yah, I would add faith to it. (Dave, ln 472-476, p.13)

        2. Like look, I don't underestimate at all the impact that faith had on my career. Had I not had the faith, I might just have found another way; a different motivation, different psychology. But, I don't try and rewrite history and say, "Oh, it didn't make a difference at all," because it made a big difference. (Dave, ln 486-489, p.13)

        3. I mean spirituality influenced the shift because it was a constant all the way through. Nothing changed in my spirituality over that course in time. It was just there. (Dave, ln 495-496, p.13)

        4. For me, I know everything is just God willing. There is a reason everything happens and as long as I let Him lead the way, basically for me, then I know everything happens for a reason. (Fran, ln 523-525, p.14)

        5. But, my parents told me, "Don't worry everything happens for a reason. It'll work itself out." I was devastated. I didn't want to hear that. But, God willing that's what gave me the drive to come back

stronger for the next year. I mean everything that's happened hasn't been easy. (Fran, ln 597-600, p.16)

6. I think religion would be the top one for me just because I wouldn't be here. It's the reason I'm here and whether it's to hurdle, to focus, to give other people motivation, inspiration, and drive, and to be a role model that's huge. I mean I've had a lot of parents and kids come up to me and say, "You've been a great role model. I'm really excited with the stuff you've done. And I'm looking forward to what you're going to do next." So, it has that. I still look at myself the same way. I'm just Fran. I go out there and train and run. But it's different, it's a bigger impact. (Fran, ln 540-546, p.14)

7. Faith, I guess you can say just because I've had so many ups and downs. (Fran, ln 586, p.15)

8. That's kind of how all those things that I said there, having that faith, having that drive and having that belief has carried me through some hardship. (Fran, ln 609-611, p. 16)

- Sub-Theme: Goal dedication

  - Resiliency/Determination

    1. I mean why I did I lose my right ovary and why don't I have a contract? Well, you know you work harder, keep pushing and striving and it gets better. It hasn't been easy for me… But once you get through it, then you're good. (Fran, ln 602-609, p.16)

    2. Well, you have to have the determination. (Fran, ln 563, p.15)

    3. Top five factors would definitely be me as an individual being focused and driven. Like the drive that you have the determination, coaching, facilities… nutrition and I guess not to lose focus on what you are doing. (Fran, ln 520-522, p.14)

  - Commitment (Seriousness)

    1. I focused on my body. I focused on the small technical aspects of what the race is. I studied people. I studied some of the guys before me, somewhat. And I kind of took it seriously. (Adam, ln 584-486, p.15)

2. The work ethics, I could say and probably you remember, [coach] had this saying "Its money in the bank." It's money you are putting in the bank when these guys were like, "Oh, shit that's hard, that's this, that's that, that's tough." [Coach] was like, "That's money you're putting in the bank! The more money you put in the bank, at the end you're going to go to the bank and you're going to have a big cash." But, if you're not ready to put that work, that sacrifice, or call it whatever you want, because it's hard, because you know you're going to have cramp and everything, forget it. You're not making any investment. (Chris, ln 540-547, p.14)

- Raw Data Theme: Passion

1. You've got to have a passion or whatever you want to call it, it maybe an overused word. You've got to love what you do. (Bob, ln1168-1169, p.28)

2. You definitely have to have the heart. If you don't have the heart, there's no point in doing something. Because you can have the top line of mondo, you could have the best spikes and the latest gear out there, but if you don't care what you're doing. If you have no heart and no drive, where does that leave you? It just leaves you empty and just doing something because… There's no heart, no drive behind it, there's no motivation. It's "I'm just doing this because well my parents want me to do it, or I'm just going to keep doing this because I've been doing this for so long, I don't know what else to do." (Fran, ln 563-570, p.15)

3. Top five factors would definitely be me as an individual being focused and driven. Like the drive that you have the determination, coaching, facilities… nutrition and I guess not to lose focus on what you are doing. Like, if you enjoy the sport and if you love what you are doing, not to lose the heart. (Fran, ln 520-523, p.14)

- Umbrella Theme: ACCUMULATED TRAINING TIME

  - Raw Data Theme: Experience developed

1. And as the years progresses, I think I am competing better because I am experienced. I learn so much as years go by. (Eve, ln 428-429, p.12)

2. And as the years progress I get better and it makes me a better competitor. (Eve, ln 431-432, p.12)

3. Usually when I go to major championships, I can't sleep, I get apprehensive, I get excited and it just drains my energy and by the time the finals comes around I'm tired. But, now with my experience, I learn that I have to sleep if I'm going to compete well. I have to rest. I'd get so nervous that I wouldn't even eat. And these are the little things as you go along that helps to make me a better athlete. (Eve, ln 434-438, p.12)

4. That definitely helped being in the NCAA circuit I guess you could say because I had the consistent rounds of meets, and I had the competition. You had people around every weekend pushing you and being use to the competition. Being use to the atmosphere and having that. And as you go over to Europe, obviously the stadium gets bigger and the crowds get bigger, and basically you are coming into your own and being comfortable around your setting. So, NCAA definitely, definitely helped me out and I would advise anybody to take advantage of that in college if you can. Because it definitely helped me and I wouldn't be the athlete I am if it wasn't for all those experiences, and all those meets that lead me up to Beijing [Olympic Games]. (Fran, ln 364-372, p.10)

- Raw Data Theme: Gradual long-term progression

1. I think it was the accumulation of training over the years. I had done nothing until I was 21. I think part of the results of XXXX, wasn't because of anything I had done. I had put the work in over a period of 6, 7 years. (Dave, ln 446-448, p.12)

2. The changes, the changes were technique and training regime. I think those were the two things that changed, but you'd also factor in accumulation of training over numerous years as an important factor. It didn't just suddenly happen. It was the result of consistent training over a period of time. (Dave, ln 502-505, p.14)

General Dimension: Factors Sustaining the Shift from Good to Great

- Umbrella Theme: MOTIVATIONAL ISSUES AND GOAL ORIENTATION
    - Sub-Theme: Passion
        - Passion/Insatiable pursuit for excellence

1. Yah. That was my thing. To me it's like the goal you achieve it. Great. You do your party, you do your thing, and then what's next. I remember the first time I won the World Championships in 'XX, I was, "Okay great, I got my medal and everything," and I remember we did all the interviews and everything, and almost at the end of the interview I was thinking already about outdoors. (Chris, ln 1060-1064, p.26)

2. And I remember one of the reporters was like, "You seem like you are not there. Are you not happy? You just won the World Championships." (Chris, ln 1066-1067, p.26)

3. I was like, "Yah, of course I'm happy. But, I'm thinking already about the World Outdoors Championship." You think I'm going to party for 2 weeks? No way! This is it. I enjoyed it and I'm thinking already about what's the next step, you know? (Chris, ln 1069-1071, p.26)

4. Okay. I would say you always have to be hungry. Hungry. You achieve something, you go further, and further, and further. And to me some people… I mean how can I say? It's not bad to say, but sometimes people are okay to deal with a certain level, even if they can go higher with harder work, more sacrifice and achieve more. (Chris, ln 1034-1037, p.25)

5. Like I have a good friend of mine, he retired a long time ago and he was saying- at that time we were closer and at some point I see him with big cars, TV, and going out and everything, and his career went down right away. Because when he started out he was very talented. He was fighting for sponsors, fighting to get into the meet, he was practicing like crazy. But, once he get the sponsors, and he gets the money, when he goes home the fridge is full. Now he doesn't have to work as hard, because he has food, he has car, he has this. You see what I mean? And now you lose your focus. And the year after the performance starts to go down. After that you don't care any more, he's finished. (Chris, ln 1039-1047, p.25)

6. Like look, I don't underestimate at all the impact that faith had on my career. Had I not had the faith, I might just have found another way; a different motivation, different psychology. But, I don't try and rewrite history and say, "Oh, it didn't make a difference at all," because it made a big difference. (Dave, ln 486-489) But, I think again for me, faith was an important part of that. Just because I was an Olympic Champion and World Record Holder it didn't let me off the hook of being essentially, someone who was trying to serve God. And I thought the way that I was doing that was through being an athlete. So the reason why I was doing it wasn't taken away. It wasn't as if I had achieved my goal. That's a goal you never achieve. It's just a constant way of being. (Dave, ln 949-954, p.23)

- Maintain motivation

1. So, that's- or maybe that's the thing year after, year after, year, I could maintain motivation… (Dave, ln 940-941, p.23)

2. But, I think again for me, faith was an important part of that. Just because I was an Olympic Champion and World Record Holder it didn't let me off the hook of being essentially, someone who was trying to serve God. And I thought the way that I was doing that was through being an athlete. So the reason why I was doing it wasn't taken away. It wasn't as if I had achieved my goal. That's a goal you never achieve. It's just a constant way of being. So, that didn't change. If it had just been about breaking records and winning medals, I might have been satisfied with the World Championships in 'XX and never quite had the motivation to do it again. (Dave, ln 949-957, p.23)

- Sub-Theme: Goal dedication

- Commitment

1. But, I think again for me, faith was an important part of that. Just because I was an Olympic Champion and World Record Holder it didn't let me off the hook of being essentially, someone who was trying to serve God. And I thought the way that I was doing that was through being an athlete. So the reason why I was doing it wasn't taken away. It wasn't as if I had achieved my goal. That's a goal you

never achieve. It's just a constant way of being. (Dave, ln 949-954, p.23)

2. First of all I take very good care of myself. People think I'm boring, but I really love my sport and I figure, some people might not agree with me, but you have to make certain sacrifices. I go to bed really early in the night to make sure I'm well rested. Because I can't expect to go partying, and be up all night on my legs and expect to get the best out of my body come the next day at practice. (Eve, ln 1023-1027, p.25)

3. I don't know what makes me different. I know what makes me, me, and that's being a very positive individual, dedicated and good work ethics. (Fran, ln 1136-1137, p.27)

- Determination

1. Secondly, I never give up. I never give up. I will search to find. I'm not that definition of insanity. If one way doesn't work, I'll find another way. (Bob, ln 1005—1006, p.25)

2. I went to work with three different coaches. Coaches in Finland. I went down to work with the guy who coached the best guy in Finland. The guy who coached the best guy in France. I worked with them because I wanted to find what worked for me. And I wanted to find the best people... I would search and work, and search and work, until I found. I wouldn't go to some scrub at York [University] and say, "Can you help me be the best in the world?" How would they know? I worked with the European Champion, the guy that took 3rd in the 'XX Olympics, the guy that beat me. I went to [train with] him, "You beat me, what the f@#! did you do?" I'd go and work and keep searching, never giving up, until I found the right combination. It took me 16 years, but I found it. (Bob, ln 1007-1016, p.25)

Resiliency/Able to overcome setbacks

1. I went to work with three different coaches. Coaches in Finland. I went down to work with the guy who coached the best guy in Finland. The guy who coached the best guy in France. I worked with them because I wanted to find what worked for me. And I wanted to find the best people... I would search and work, and search and work, until I found. I wouldn't go to some scrub at York [University] and say, "Can you help me be the best in the world?" How would they know? I worked with the European Champion, the guy that took 3rd in the 'XX Olympics, the guy that beat me. I went to [train with] him, "You beat me, what the f@#! did you do?" I'd go and work and keep searching, never giving up, until I found the right combination. It took me 16 years, but I found it. (Bob, ln 1007-1016, p.25)

2. I try to take the ups and downs because I had my ups and downs. Everybody has their ups and downs, whatever level it is and honestly people deal with things all the time, but at the same time, it's how you deal with those things. And I've realized that. (Fran, ln 1143-1145, p.27)

- Sub-Theme: Drive

  - Goal Oriented

1. Yah. That was my thing. To me it's like the goal you achieve it. Great. You do your party, you do your thing, and then what's next. I remember the first time I won the World Championships in 'XX, I was, "Okay great, I got my medal and everything," and I remember we did all the interviews and everything, and almost at the end of the interview I was thinking already about outdoors. (Chris, ln 1060-1064, p.26)

2. Maybe they're going to be satisfied with what they have, with what they achieve. I mean I always say if its fine for them, it's okay. If they are happy and that was the goal, it's fine. (Chris, ln 1037-1039, p.25)

3. …to produce that level of performance. Instead of… you know, to produce one incredible year is one thing, but to do it year after year after year that requires a lot of single mindedness. (Dave, ln 941-943, p.23)

- Striving to be your best

    1. Yah. That was my thing. To me it's like the goal you achieve it. Great. You do your party, you do your thing, and then what's next. I remember the first time I won the World Championships in 'XX, I was, "Okay great, I got my medal and everything," and I remember we did all the interviews and everything, and almost at the end of the interview I was thinking already about outdoors.

       And I remember one of the reporters was like, "You seem like you are not there. Are you not happy? You just won the World Championships."

       I was like, "Yah, of course I'm happy. But, I'm thinking already about the World Outdoors Championship." You think I'm going to party for 2 weeks? No way! This is it. I enjoyed it and I'm thinking already about what's the next step, you know? (Chris, ln 1060-1071, p.26)

    2. You achieve something, you go further, and further, and further. And to me some people… I mean how can I say? It's not bad to say, but sometimes people are okay to deal with a certain level, even if they can go higher with harder work, more sacrifice and achieve more. (Chris, ln 1034-1037, p..25)

    3. And I think… I think when I was a younger athlete, the magic of just getting that tape measure out and just seeing where it would show on the board, and seeing a new personal best, that's the magic of athletics. I love it. I mean records are great and winning some medals, but I still think it's a battle against the tape or the clock. (Dave, 919-924, p.23)

    4. When it comes down to the last thing, someone can't say, "Nicole you have to go to practice. You can't do this, you can't do that." If you don't want to do it, you're not going to do it. You know what I mean? So it's like, "Okay, this is what I have to do and I'm going to do the best that I can." (Fran, ln1155-1158, p.28)

- Driven to prove others wrong

    1. My desire to be successful. I have a huge desire to succeed. I like to prove as well. I like when people say, "You can't do it," and I just prove, "Yah, I can do it." [whisper] I get thrill from that. I thrive on that. (Eve, ln 1035-1037, p.25)

2. Like, at my National Championships a girl wrote in the papers "Eve isn't going to make the team [XXXX World Championships].' The worst thing they could do because they just give me a little bit more desire, just to prove that I can do it. I kind of thrive on negativity. (Eve, ln 1039-1042, p.25)

3. Yah, I'm a positive person, but when people doubt me or people like to put you down or belittle you, I kind of like that… You need a little bit of that sometimes to keep you going, I think so. (Eve, ln 1046-1048, p.25)

- Umbrella Theme: PERFORMANCE ENHANCEMENT SKILLS AND CHARACTERISTICS
    - Sub-Theme: Self-regulation
        - Good work ethic

1. Like I said earlier, and I don't know where I get this from - I use to go out and do motivational speaking on the different reasons why different people succeed - the athletes, the successful business people… they've got drive, they've got all this drive. I have this uncanny and it's the only non-modest thing I'm going to say about myself, work ethic. I don't know where I get it from. (Bob, ln 993-997, p.24)

2. I-- Number 1, I don't know anybody who works as hard as me. I know a lot of people work hard and I'm sure they work harder than me. But, I don't see it. Work ethic is my number one thing. (Bob, ln 1001-1003, p.24)

3. c

4. I don't know what makes me different. I know what makes me, me, and that's being a very positive individual, dedicated and good work ethics. (Fran, ln 1136-1137, p.27)

- Discipline/Create structure

    1. Create a structure and follow it. (Adam, ln 1007, p. 24)

    2. I suppose having the… the discipline just do that year, after year, after year, to apply the same mindset, or to be in it at slightly a different angle. I lifted that same set of weights, in the same corner of the gym for 15 years or jumped over the same hurdles, or just so repetitive. Yah, I was able to do that. (Dave, ln 936-940, p.23)

    3. … you know, to produce one incredible year is one thing, but to do it year after year after year that requires a lot of single mindedness. A lot of discipline. (Dave, ln 941-943, p.23)

- Take care of self

    1. And you also have to love yourself a little bit. And love yourself a little bit meaning, if you're feeding your body is more important than feeding someone else's body. Do you understand what I'm saying? So make sure that you're hydrated - prepare yourself the best that you can be. Because sometimes, people are like, "No, I didn't eat. I didn't eat. Well I know, I was watching TV and fell asleep." Well whose fault is that? (Adam, ln 999–1003, p. 24)

    2. First of all I take very good care of myself. People think I'm boring, but I really love my sport and I figure, some people might not agree with me, but you have to make certain sacrifices. I go to bed really early in the night to make sure I'm well rested. Because I can't expect to go partying, and be up all night on my legs and expect to get the best out of my body come the next day at practice. (Eve, ln 1023-1027, p.25)

- Balance in life & sport

    1. Well, first I think you have to know yourself. And I think if you find balance, in however you find balance (that's really your own personal balance) and then after you do those two things, if you find the right people around you who trust and believe, then the ability to be consistent over a longer term is way more easier. (Adam, ln 991-994, p. 24)

- Know oneself

    1. Well, first I think you have to know yourself. (Adam, ln 991, p. 24)

- Sub-Theme: Talent/Ability/Genetics
    - Talent/Ability/Genetics
        1. I mean I'd probably have to say genetics have played a huge factor for me, being able to be consistent. I mean you can't build somebody into something that they are not. I mean you can train someone to a certain level, but you have to have certain abilities to begin with. So, I think being genetically blessed has helped to be at the level that I'm at. (Fran, ln 960-964, p.23)
        2. What I'm saying for me the muscles, the metabolism, being able to do certain things, being able to accomplish certain things because of genetics. (Fran, ln 969-970, p.24)
    - Raw Data Theme: Focused
        1. …to produce that level of performance. Instead of… you know, to produce one incredible year is one thing, but to do it year after year after year that requires a lot of single mindedness. (Dave, ln 941-943, p.23)
    - Raw Data Theme: Positive
        1. I don't know what makes me different. I know what makes me, me, and that's being a very positive individual, dedicated and good work ethics. (Fran, ln 1136-1137, p.27)
    - Raw Data Theme: Belief in self
        1. I know what I am capable of doing. And at the end of the day, I'm the one who's going to make the difference in my life. (Fran, ln 1154-1155, p.28)

- Umbrella Theme: ACCUMULATED TRAINING TIME
    - Raw Data Theme: Accumulated training time
        1. I'd suppose I'd say the transition was just apart of the maturing process as an athlete because I had come to it relatively late. So, it was just a case of building a foundation. And once it was built, I

reached a certain level and that was my level. (Dave, ln 934-936, p.23)

General Dimension: Strategies Implemented to Create a Shift from Good to Great

- Umbrella Theme: INFLUENCED BY SUPPORT AND OTHERS

    - Raw Data Theme: Support of coach

        1. Like I said I made that conscious decision in the first conversation I had with [Coach] in XXXX in March 1st XXXX. (Adam, ln 651-653, p. 17)

        2. And I'm saying to you I'm having the first serious conversation since my father, since I was a child. The first serious conversation about my potential and what I can do with a little [country] guy [Coach] walking around… (Adam, ln 658-660, p.17)

        3. But he was one of those people who'd go "Everything that is within you, if you pull it all out you can destroy everybody." (Adam, 686-687, p..17)

        4. He'll [coach] forever be one of the closest guys in my life because of that. That day. (Adam, ln 671-672, p.17)

        5. So, [Coach] is like, "Listen you're blessed with genetics. You've got stuff I haven't seen and so here's the deal, if you listen you want to do it, do it!" (Adam, ln 697-698, p.17)

        6. Because the first training I had with [Coach], we were doing blocks, we were doing sprints and [Coach] was like, "You're not running properly."

           I was like, "Yah, whatever. What are you talking about? I mean I won the World Indoor Championship, and I'm winning this and that and I'm not running well? Okay, whatever buddy!" [laugh] You know kind of thing. And he taught me how to run properly. And I tried it. And at first it was all awkward, and I'm like, "Hmm, I don't know about that?"

           And [Coach] was always like, "Trust it, trust it, trust it." And he told me after one training if I run like that at the Canadian Championship, which was one month after that training camp, he goes I'm running 9.89 [s]. (Chris, ln 583-585, p.15)

7. And I remember the year I ran the 9.84 [s], after the training [Coach] took me aside and he said "You see how you're running that, how you feel the difference?" (Chris, ln 590-591, p.15)

8. And in XXXX after one practice [Coach] told me, "This was it." After whatever 20 or 30 years he was coaching, we were doing 120 [m], apparently I did the 120 [m] fastest ever of his athletes. He goes to me, "Chris, I have the legs to run 9.7 [s]. Physically I'm capable to do that. Now the only thing is to run the race no mistake and I have to be ready 100% psychologically." I remember that properly. (Chris, ln 598-602, p.16)

9. I call [Coach] and say, "Hey [Coach], I want to come to [city]."

   Without hesitation [Coach] said "Come on down." and that made a big difference in my career. (Chris, ln 643-646, p.170)

10. When I *realized* I was *really, really* good and had the ability to do great things, is when I met my present coach, Mr. Steven Francis and started working with him, and that was XXXX, after college when I was finished and I decided to go home. He said "You have world-class talent." I've never heard those words before and no one has really ever said this to me before. And he said "I think I can get you to the Olympics." (Eve, ln 644-646, p.17)

11. My coach was a huge factor. (Fran, ln 759, p.19)

12. Going and working with a coach who was clearly- and he wasn't even a sprints coach. He was a coach. He got me stronger, fitter and through that I got better as an athlete. (Greg, ln 1096-1098, p.26)

13. There's been, sometimes on my part, sometimes on my coach's part. (Heather, ln 761-762, p.19)

14. We [coach and Heather] always identify- usually it's like what are we lacking? What's missing in the puzzle and then we'll take a look at my weaknesses. And then that's usually what sparks the change. It's like well this is how we fix it, by doing this and let's see if it makes a difference. So, usually those changes, whether it's in the program - the actual training program - or it's in lifestyle changes, it's always because we've identified a weakness and we need to change it in order to be the best prepared that you can be. (Heather, ln 815-821, p.20)

15. And then in 'XX- I would always go back to [city] for a couple weeks here and there to train with [Coach] and make sure everything was

right with my technique and my approach and stuff like that; but then you know always a little bit before the nationals I'd get like a little check up kind of thing, you know, and that was it. And then it wasn't until 'XX I was like, "I would really want to make this Olympic team. I think the best thing for me to do is to go to [city]." And so I moved to [city] at the end of 'XX and stayed out there until- well basically until I went to the trials and moved back to [city]. (Ian, ln 717-726, p.18)

16. He [coach] let me stay at his house for a couple weeks or whatever and train and learn the system. And then I would come back to [city] and try and implement everything that I learned, and go back out there and do like that. (Ian, ln 756-758, p.19)

17. And then the beginning of the- between my sophomore year and junior year, my coach told me if I came back at that weight he would not let me compete my junior year. "Keep your scholarship, but you're done. You're hurting yourself." (Jan, ln 380-382, p.11)

- Raw Data Theme: Believed in Coach

1. [Coach] had… I think I'd done a lot of research on [Coach], and I also observed him and the people that he'd coached. And I knew that he'd never had an Olympic Champion and he'd never had whatever, but everyone was successful to whatever their levels could be; and the fact that he was, from where I was standing, an incredible teacher. So he's the guy I'm thinking, "If you're an incredible teacher, I'm not going to question anything you are saying." (Adam, ln 676-681, p.17)

2. Already, there was trust there because I know what' he's doing with Adam, it's working. He's very careful when he's in training and everything. I said, "Well this is what I needed."

   So, when [Coach] said "Trust it," and I know sometimes you have to take risks.

   And I'm like, "Let's go. I trust you 100%. Let's go. I believe it." And that's it. (Chris, ln 654, p.17)

3. I have confidence in my coach. I do. I have 100% confidence because I know he wants what is best for me. So, therefore I just put everything in his hands. I know that he has brought me this far and he knows what has worked. And I trust that he knows what he is doing because we've had results. (Eve, ln 908-911, p.22)

4. So, I was looking for another coach at that point in time and I had all these different ideas of who I wanted to coach me. And his name kind of came up. So, I kind of went out to [city], like a recruiting trip kind of thing. And when I went to [city] and I went to his office- like he's got this old hallway that might be about 50 m long, and as you are walking down this long hallway he's got All-American plaques on the top- like on the wall, but they're like flush with the season. So you look up and you can see all these All-American plaques. And as I was walking down it was like long jump, triple jump, high jump, high jump, triple jump, long jump, long jump. I was like, "Wow! This guy has coached probably 50 All-Americans in the high jump, long jump, triple jump. He knows what he's talking about." (Ian, ln 743-752, p.19)

- Raw Data Theme: Influence of Family

1. And it was only in December before the Olympics, [Husband] was like, "I know we've just been married and it's really tough, you need to go back and train with [Coach]. You can't keep training yourself. This isn't going to work." So, long story short, him and I did the long distance thing for a little bit while he was still in school, and I went back and stayed with my parents, to train with [Coach] to get ready for the Olympics. (Fran, ln 431-436, p.12)

2. …but that's one thing, [Husband] is a great support. I mean he's pushed and he just wants to see me do the best that I can. Like at Nationals this year he said "Is it greedy for me to say I want you to have our baby, but I want you to still be running?" He's just loves so. (Fran, ln 436-439, p.12)

3. Pretty much. It was a huge year. It was hard. Not to say it was a walk in the park for [Husband] and I, because it did become strenuous. I really started missing him. I'm use to being married, to having your own place. And having to go back, and missing each other, and trying to work out, it definitely wasn't easy. But, we made it work. He came up when he can, and I went down when I could, and he came over to the Olympics. It was crazy… (Fran, ln 698-703, p.18)

4. I mean [Husband] was a huge factor. (Fran, ln 759, p.19)

5. Family was a huge factor. I mean there was a lot of factors that kind of came into play. But, at the end of the day, you know there was obviously, like we had some arguments, there was tears; there was everything, all kinds of emotions, all kinds of things that went along for the whole year. Like, "I miss you," or "Are we making the right

decision here?" I guess you don't ever know, but you have to try. (Fran, ln 759-764, p.19)

6. Well, [Husband], helped out with the support in that way, you know like, "We'll be fine." Because when it gets to a lot of things, people are scared to do a lot of things, worrying about change. But, change can be good. So, by having a very supportive husband definitely helped with making it back because- well, could you imagine if he was like, "No, I don't want you to go. I don't want you to do this. And I want you to train, but I want you to train here by yourself"? I wouldn't be where I am, if it wasn't for him being okay- because I'm not going to put the marriage in jeopardy. (Fran, ln 775-781, p.19)

- Raw Data Theme: Influence of Teammate

1. No, I think, I think I was really lucky. Timing is everything. When [Training partner]--. I remember just being in my car on the phone and I had decided to retire and I was selling real estate here actually in [city] and he goes, "Come on, you're not done, you've got more in you"...

   Whatever the exact conversation was. And I remember thinking, "Yeah you know what? I do. I love sports. I love track. I can't be done." So, I just decided to get up and go and just do it… (Bob, ln 519-526, p.14)

2. It's not like anything changed. Somebody just smacked me over the head and said, "What are you doing? You're still young. You can still train. You can still compete." So, I said, "Okay, I'll give it another shot." It's nothing like I was really motivated or --. I don't think there was any other factor other than I just wanted to continue on doing what I loved doing. I retired too early. (Bob, ln 519-531, p.14)

3. [Training partner] did. We were pretty good friends in the late XX's. His sister was an actress and came over here for a month, and I was hanging out with her and you know, we called [Training partner] and [Training partner] and goes, "Come on man, you're not done. You know, you shouldn't retire. Give it one more shot. Come over here, train with me." And I did. He was actually my training partner…Was the guy that brought me back to beat him in the Olympics which should have been his. (Bob, ln 306-312, P. 9)

4. I really liked [Athlete's] approach. He was a great jumper. He was doing some great things. So I asked him who his coach was. He told me he was training with [Coach]; he was like a great coach. And then

he was like, “You should come out and talk to him.” (Ian, ln 738-741, p.19)

5. Yah, so that’s how I kind of got hooked up with [Coach], which was through [Athlete]. (Ian, ln 755-756, p.19)

- Raw Data Theme: Influence of Spiritual Faith

1. I would pray or talk to people. (Ian, ln 765, p.19)

2. So, it basically came from prayer and speaking to more educated people about it I guess. (Ian, ln 773-774, p.19)

- Raw Data Theme: Influence of Sport Psychologist Support

1. I would pray or talk to people. You know, like I have a sports psychiatrist or psychologist that I speak to very often. That I spoke to then, and I have a new one that I speak to now. That’s one of the reason why I was having to figure out that I needed a coach. In XXXX a guy named [Sport Psychologist], [Sport Psychologist] was like, “You know what. You need to figure out who’s the best coach in the nation, or who is a great coach that you could work with, in the nation?” So we kind of brainstormed on different names of coaches. (Ian, ln 773-770, p.19)

2. So, it basically came from prayer and speaking to more educated people about it I guess. More educated than I was. (Ian, ln 773-774, p.19)

- Raw Data Theme: Suggestions of Others

1. I was always one of those- I don’t have an ego when it comes to [inaudible]. Like, “I know this,” or “I know that. This person doesn’t know more than me, so who are they to tell me?” Listen if somebody tells me something that sounded like it made sense and they had the results to be giving me this information, I listened. (Jan, ln 676-679, p.17)

2. Or if somebody told me that I had to move all the way back to go train with a training group with [coach], or these girls, had to watch her video or- I made a lot my decisions based on what I needed at the time and I had to pretty much try and do- if somebody told me, “Oh, you need acupuncture,” well I hate needles, but I know that it does work, and I know that I need it intuitively, I will try it. I think a lot of my decisions were based on common sense and need. (Jan, ln 683-688, p.17)

- Umbrella Theme: ANALYTICAL OF TRAINING AND TECHNICAL NEEDS

    - Raw Data Theme: Mastery of Technique Focus

        1. The only thing I was focused on, I remember this very clearly, it's like the technique. (Chris, ln 573-574, p.15)

        2. And in XXXX after one practice [Coach] told me, "This was it." After whatever 20 or 30 years he was coaching, we were doing 120 [m], apparently I did the 120 [m] fastest ever of his athletes. He goes to me, "Chris, I have the legs to run 9.7 [s]. Physically I'm capable to do that. Now the only thing is to run the race no mistake and I have to be ready 100% psychologically." I remember that properly. (Chris, ln 598-602, p.16)

        3. But, basically what changed in Adam, it was his biomechanics! And I was like, "Motherf@#&er!" Oh, sorry [laugh]. Sorry about the language [laugh]. So I was like, "Okay this is the perfect example. This guy came from this to this. I see this there's a change. Why is he successful? Why did he change?" So, it took me… It was about 'XX… a couple of years. I see success, winning the World Championships, winning the Olympics and everything. I want a piece… to be closer to that. I call [Coach] and say, "Hey [Coach], I want to come to [city]." (Chris, ln 638-644, p.16)

        4. Adam- remember when I said the first time he beat me in Germany, I say before coming to Germany he was running in Rome. I watch on the TV on Euro Sport, he came second in that race, almost beat [Athlete]. From that race, I was like, "Oh, shoot. Adam is not running like he was running before." (Chris, ln 624-627, p.16)

        5. I mean I see Adam the way he is running now, I don't know what he's doing, but biomechanically he's not running the same! (Chris, ln 631-633, p.16)

        6. But, I just know the physical shape I was in, I could have jumped further. (Dave, ln 555, p.15)

        7. I specifically couldn't get my bloody arms to work. (Dave, ln 562, p.15)

        8. Each year I build on everything, but in the year of XXXX I think I was a more technical athlete. (Eve ln 622-623, p.16)

9. And I think I was technically sound and that made a significant difference. (Eve, ln 625-626, p.16)

10. Because, it's not like I just jumped from 12.6 [s], 12.8 [s] I was still running 12.6 [s] but now I was running 12.4 [s] and 12.5 [s] consistently. And that's just from a correction in your mechanics. It's not like I ran 12.3 [s]. (Eve, ln 630-632, p.16)

- Raw Data Theme: Analytical of Training

1. I sort of got analytical. So at the end of each year you sort of look back and think what can I change; what can I improve; how can I increase my motivation in training, all that sort of things. (Dave, ln 602-604, p.16)

2. And I made a conscious decision to be more active in my own recovery. So, cold tubs, being a little bit more flexible, all that kind of stuff, I made conscious decisions to, "Let's just do this." (Heather, ln 790-793, p.20)

3. There's been, sometimes on my part, sometimes on my coach's part. (Heather, ln 761-762, p.19)

4. Training wise there has been constant changes to my lifting program. I remember leading up to XXX we tried this- you know we had been lifting pretty successful in strength gains and my coach was like, "You know what? We just need to get stronger." So, we were doing this crazy high volume, high intensity lifting. My body was shot. Like absolutely shot. But, then we got through that phase I was the strongest I had ever been. And I felt so solid. It was like a conscious decision to get that done and it translated over to the track. (Heather, ln 766-772, p.19)

5. To make sure that I'm the most prepared that I can be? … Well, usually I'll identify a weakness. Like I'll come to practice and my stomach will hurt all the time. Well, it's like, "What are you eating? Oh, crap." We always identify- usually it's like what are we lacking? What's missing in the puzzle and then we'll take a look at my weaknesses. And then that's usually what sparks the change. It's like well this is how we fix it, by doing this and let's see if it makes a difference. So, usually those changes, whether it's in the program - the actual training program - or it's in lifestyle changes, it's always because we've identified a weakness and we need to change it in order to be the best prepared that you can be. (Heather, ln 813-821, p.20)

6. You know what? They are sporadic. Usually right before- because there's time where I'm not feeling very good, or I'm not feeling this, or feeling that, so that can come at any point. But, usually they're done before the training season starts. So, before the new season. So, like after the competition season and then leading up to the new season of preparation. Throughout the training there are times that I don't feel this or I'm feeling like sluggish or something, I just don't feel like I'm not getting enough. Then we'll make a decision even mid season. (Heather, ln 825-831, p.20-21)

7. More rest, how I'm eating, even… what's it called... physiotherapy. Seeing a chiropractor. Getting massage. It's all important. You can't go a season without getting a treatment. (Kyle, ln 555-557, p.15)

- Umbrella Theme: PERFORMANCE ENHANCEMENT SKILLS AND CHARACTERISTICS
    - Sub-Theme: Self-Regulation
        - Self-Reflection

1. I've sat down with myself; and I've sat down with [Coach]; and also even [Sport Psychologist]. I've talked to her about certain things that I want, and want to see happen. It's just overall, I've sat down with myself and said this is what I want to do, and I've got to do everything to do it. (Kyle, ln 543-546, p.14)

2. I've said to myself, "At the end of this year I really want to evaluate where my athletic career is going." I definitely want to go back to school for a Masters degree. And so there comes a point in your life where sometimes you have to go through a different area in your life and leave what you've been doing for a while. (Kyle, ln 512-516, p.14)

3. So, I've said to myself that I definitely want to evaluate the whole picture at the end of this season and decide whether to continue or not to continue. And that's why I said to myself I want to put everything all in one basket. Train hard and give all that I have into training and trust that it helps me in the long run. (Kyle, ln 516-519, p.14)

4. You know what? They are sporadic. Usually right before- because there's time where I'm not feeling very good, or I'm not feeling this, or feeling that, so that can come at any point. But, usually they're done before the training season starts. So, before the new season. So, like after the competition season and then leading up to the new season of preparation. Throughout the training there are times that I

don't feel this or I'm feeling like sluggish or something, I just don't feel like I'm not getting enough. Then we'll make a decision even mid season. (Heather, ln 825-831, .20)

- Self-Talk

    1. Talking to myself; letting myself know, if this is what you want to do you've got to do this, and this, and blah, blah, blah. And that was the big things those years. (Ian, ln 642-644, p.16)

- Focused
    1. And as 'XX came around, you know I just tried to stay as focus as possible. But, still from a training aspect, I was doing the same things. (Ian, ln 693-694, p.18)

- Hard Worker

    1. Going out everyday and working hard. And not just working hard, because I can go out there and work hard everyday, but be passionate about what I'm doing. (Ian, ln 623-625, p.16)

- Raw Data Theme: Improved Confidence

    1. Mentally, I started achieving those goals that I put out there so it increased my confidence. (Ian, ln 686687, p.17)

    2. I mean yah, there was little things, like I got to run a little faster. But, those things actually came because I was getting more confident. It was like, "Oh, oh well I can run this fast and still jump high. I didn't know that. So let me run faster." You know it was those things that kind of came into play. (Ian, ln 689-692, p.17-18)

- Raw Data Theme: Mentally Prepared

    1. And in XXXX after one practice [Coach] told me, "This was it." After whatever 20 or 30 years he was coaching, we were doing 120 [m], apparently I did the 120 [m] fastest ever of his athletes. He goes to me, "Chris, I have the legs to run 9.7 [s]. Physically I'm capable to do that. Now the only thing is to run the race no mistake and I have to be ready 100% psychologically." I remember that properly. (Chris, ln 658-602, p.10)

- Umbrella Theme: MOTIVATIONAL ISSUES AND ORIENTATION

    - Raw Data Theme: Passion

1. And I remember thinking, “Yeah you know what? I do. I love sports. I love track. I can’t be done.” So, I just decided to get up and go and just do it… I just wanted to continue on doing what I loved doing. I retired too early. (Bob, ln 520-531, p.14)

2. I think too as an older athlete is to just try and keep that passion alive to work towards the goals I want to achieve. (Ian, ln 621-623, p.16)

3. So, as the years started going along, and I started missing teams that I wanted to be on, missing World Championships teams and Olympic teams, I was like, “Man this is tough! This is- I’ve got to do something about that!” So, I started thinking I’ve got to renew this passion, which is one of the reasons I switched coaches for those couple of years. (Ian, ln 1014-1017, p.25)

4. But, it’s just one of those things, making sure I am passionate on every run, on every time that I lift weights, on every time I step on the track and jump. On everything that I do, I want my best to be as passionate about it as possible, and I think that if I bring that into my jumping that would help me out a lot more as well; because that is one of the bigger things I didn’t realize until I got older, is what pushed me to that next level as well, is that passion. (Ian, 633-638, p.16)

5. And after you achieve so many things in your athletic career it can be easy to let that passion slip away. And so I almost have to- and I’ve been doing this- but mentally retrain myself to start being passionate about things. Going after things. (Ian, ln 640-642, p.16)

- Raw Data Theme: Dedicated Self

1. The major change came that year, which from ’XX to ’XX when I decided, “You know what I’m going to really dedicate myself to this training program. Lifting weights. Every day I need to lift weights. Training. Everyday I need to train,” and just dedicating myself that year. And when I saw the results come directly doing that, that’s when I knew that’s what I’ve got to do. That’s what I have to do. If I want to be great I should do that every year, because that’s what works. (Ian, ln 616-621, p.16)

2. From eating right, to getting rest, and so it’s important… More rest, how I’m eating, even… what’s it called... physiotherapy. Seeing a chiropractor. Getting massage. It’s all important. You can’t go a season without getting a treatment. (Kyle, ln 546-557, p.14)

- Raw Data Theme: Goal Oriented

1. I was so trying to prove myself. I was just so trying to just get out there and do the best that I can do, you know? Because I knew I could make the Olympic team. I knew I was good enough to be able to do those things. (Ian, ln 640-647, p.16-17)

2. Mentally, I started achieving those goals that I put out there so it increased my confidence. (Ian, ln 686-687, p.17)

3. And then it wasn't until 'XX I was like, "I would really want to make this Olympic team. I think the best thing for me to do is to go to [city]." (Ian, ln 621-711, p.18)

4. I had broke the school record as a freshman at [University] and I think there wasn't a whole lot to be accomplished after that. I had great coaching and good people looking after me, but I wanted to be best and I thought that I needed to be in an environment where people shared the same common goal as you. A different, more aggressive, more driven teammates was important and have a team where guys got along and went after the same goal. (Liam, ln 450-455, p.12)

- Umbrella Theme: ANALYTICAL OF NUTRITIONAL NEEDS

    - Raw Data Theme: Analytical of Nutritional Needs

        1. And then on my part, we made the decision to change the way I eat. You know me, friggin' fast food junkie. (Heather, ln 722-773, p.19)

        2. You know I really wanted to do some great things so I was like, I'm going to change the way I eat. And it doesn't mean I don't have fast food ever. But, it's just… There were times that I've had fast food for lunch and dinner at McDonald's in the same day. That's disgusting. So, then we started to wean myself off that, supplementation. (Heather, ln 778-782, p.19-20)

        3. But, then we found certain stuff that we trusted that were from say GNC, and we were like, "Okay, we've just got to make sure that I'm taking that." So, I would do my protein. I was on my protein all the time. Like before I was like maybe sometime. Then I was like, "I'm going to stick to it, I'm taking my multivitamin, my iron, all that stuff. And I'm going to take my protein as a recovery drink and all that kind of stuff." (Heather, ln 786-789, p.20)

        4. Supplementation was more… I'd probably say a little earlier like XXXX. But, I'd been so up and down with that, but I made a conscious decision in XXXX to get on top of that. Then slowly lose that. Then XXXX, I made sure that like, "Yah I'm always on top of

that!" And then I know this year we've made, like I've made that conscious decision again with the supplementation. (Heather, ln 799-803, p.20)

5. To make sure that I'm the most prepared that I can be? … Well, usually I'll identify a weakness. Like I'll come to practice and my stomach will hurt all the time. Well, it's like, "What are you eating? Oh, crap." We always identify- usually it's like what are we lacking? What's missing in the puzzle and then we'll take a look at my weaknesses. And then that's usually what sparks the change. It's like well this is how we fix it, by doing this and let's see if it makes a difference. So, usually those changes, whether it's in the program - the actual training program - or it's in lifestyle changes, it's always because we've identified a weakness and we need to change it in order to be the best prepared that you can be. (Heather, ln 813-821, p.20)

6. So, I based a lot of what I chose to do, off of a needs basis. If I needed to train with this coach all the way in New Jersey, didn't know anyone over there, that wasn't going to stop me from going. (Jan, ln 679-683, p.17)

7. …a lot of it had to do with not so much time management because I was good with that, but being in control of myself - what I was eating, when I was sleeping, umm that sort of things. And I wasn't aware that my diet was so good in the [country]. I had no idea. I just ate what my mother cooked, and that apparently [country] food is healthy. You don't even think about it when your 15, 14 [years old]. You're not paying attention like, "Oh, I'm eating all this protein and it's boiled and it's skewed." You're just eating the food that's on the table. And then I got to college, still with no concept of good or bad food. Ate all that crap in the dorm, and so then I put on all this weight. (Jan, ln 366-374, p.11)

8. So I finally saw a nutritionist. I went home to the [country]. I handled my business. I did what I was supposed to do nutritionally finally, and I worked out three times a day, and I lost the weight. I came back at the end of the summer and I had gone down from 158 [pounds] to 132 [pounds]. Then I came back. Had I never done that, in that year, I probably would have never become a professional athlete, because I would never have known that I could be better than what I had been doing. (Jan, ln 384-391, p.11)

9. From eating right, to getting rest, and so it's important. It's all important. A lot of people don't believe that eating right is important with how you perform. I mean I cook a lot more now. I'm not out eating all the time. (Kyle, ln 5466-548, p.14)

10. More rest, how I'm eating, even… (Kyle, ln 555, p.15)

- Umbrella Theme: ENVIRONMENT CHANGE
    - Raw Data Theme: Environment Change
        1. [Training partner] did. We were pretty good friends in the late XX's. His sister was an actress and came over here for a month, and I was hanging out with her and you know, we called [Training partner] and [Training partner] and goes, "Come on man, you're not done. You know, you shouldn't retire. Give it one more shot. Come over here, train with me." And I did. He was actually my training partner…Was the guy that brought me back to beat him in the Olympics which should have been his. (Bob, ln 306-312, P. 9)

        2. You mean going from living in the [Country], to coming back to [Country], living with my parents, and focusing on the Olympics? [rhetorically] (Fran, ln 693-694, p.18)

        3. After 'XX when I didn't make the World Champs team- I decided to head down [Country] and take my sport more seriously. (Greg, ln 1325-1326, p.31)

        4. I transferred from [University] to [University] because I wanted to be with a stronger team and I wanted to be challenged and pushed. (Liam, ln 439-440, p.12)

        5. I had great coaching and good people looking after me, but I wanted to be best and I thought that I needed to be in an environment where people shared the same common goal as you. A different, more aggressive, more driven teammates was important and have a team where guys got along and went after the same goal. (Liam, ln 451-455, p.12)

        6. I always wanted to go back and work with [coach] because I really appreciated working with him. But, [city], [country] is difficult place to be an elite athlete. Not many elite athletes, and there's nobody to sort of be around, but me being an athlete I want to be in an environment. (Liam, ln 476-479, p.13)

        7. I wanted the people that came with a good group of guys, and I didn't have that and then [city] was more individual. Half the time there was people [inaudible] no time for that. Kind of branched out on my own. (Liam, ln 484-486, p.13)

- Umbrella Theme: SOCIAL COMPARISON
    - Raw Data Theme: Success of Competitor
        1. But, basically what changed in Adam, it was his biomechanics! And I was like, "Motherf@#&er!" Oh, sorry [laugh]. Sorry about the language [laugh]. So I was like, "Okay this is the perfect example. This guy came from this to this. I see this there's a change. Why is he successful? Why did he change?" So, it took me… It was about 'XX… a couple of years. I see success, winning the World Championships, winning the Olympics and everything. I want a piece… to be closer to that. I call [Coach] and say, "Hey [Coach], I want to come to [city]." (Chris, ln 638-644, p.16)
        2. Adam- remember when I said the first time he beat me in Germany, I say before coming to Germany he was running in Rome. I watch on the TV on Euro Sport, he came second in that race, almost beat [Athlete]. From that race, I was like, "Oh, shoot. Adam is not running like he was running before." (Chris, ln 624-627, p.16)
        3. I mean I see Adam the way he is running now, I don't know what he's doing, but biomechanically he's not running the same! (Chris, ln 631-633, p.16)
        4. That year my coach spent a lot of time taping my competition, and picking out what I'm doing it wrong, and we would compare it to others who were doing the right thing. (Eve, ln 623-625, p.16)
        5. In XXXX, one of the best jumpers was [Athlete], at that point in time. I competed against him in college and stuff like that. I really liked [Athlete's] approach. He was a great jumper. He was doing some great things. So I asked him who his coach was. (Ian, ln 7370739, p.19)
        6. …and decided to go to [University] because when I was at the NCAA Indoors Championship, I saw the way they were behaving and I saw the way they were challenging to compete and I wanted to be with them. (Liam, ln 469-471, p.13)
- Umbrella Theme: ACCUMULATED TRAINING TIME
    - Raw Data Theme: Gradual Long-Term Progression
        1. I think it was gradual. I think it was gradual. (Eve, ln 622, p.16)

2. Because, it's not like I just jumped from 12.6 [s], 12.8 [s] I was still running 12.6 [s] but now I was running 12.4 [s] and 12.5 [s] consistently. And that's just from a correction in your mechanics. It's not like I ran 12.3 [s]. (Eve, ln 630-632, p.16)

3. This is a tricky question, because you don't go there and say, "Ok, I'm going to improve now." You just do the things and hope it's going to work out. And as I said, we've just been doing the same thing over and over, and I just got better at it each time, each year, each season as we go by. I never really changed anything that much. (Eve, 650-653, p.17)

4. And then 'XX I just kind of kept that momentum going. My training didn't change. It wasn't like I was working any harder. (Ian, ln 684-686, p.17)

5. And as 'XX came around, you know I just tried to stay as focus as possible. But, still from a training aspect, I was doing the same things. (Ian ln 693-694, p.18)

- Umbrella Theme: NEGATAIVE EXPERIENCES

    - Raw Data Theme: Past Performance
        1. After 'XX when I didn't make the World Champs team- I decided to head down [Country] and take my sport more seriously. (Greg, lln 1325-1326, p.31)

        2. So, as the years started going along, and I started missing teams that I wanted to be on, missing World Championships teams and Olympic teams, I was like, "Man this is tough! This is- I've got to do something about that!" So, I started thinking I've got to renew this passion, which is one of the reasons I switched coaches for those couple of years. (Ian, ln 1014-1017, p.25)

        3. Because I left high school as the number one recruit from any place…. And I came to [university] and in my first 2 years I just went backwards, in completely the opposite way. I was not being good to great; I was being good to bad. (Jan, ln 348-352, p.10)

        4. I went the opposite way that you're suppose to go. And up until then I'd never had that experience. From 12 to 17 [years old] when I went to college, every year I improved in the jump by 4 to 6 inches. So, I had never had a period of time without significant improvement in a year's time. (Jan, ln 357-360, p.10)

5. So, that was the year that let me know I could be something on the world level. Forget college. I went from being very substandard in college to being top 10 in the world. (Jan, ln 401-403, p.11)

- Raw Data Theme: Injury

1. Plus then I ended up having two knee surgeries, my beginning of my sophomore year, the beginning of my junior year because I was jumping at too heavy of a weight. Definitely good to bad! (Jan, ln 376-378, p.11)

- Umbrella Theme: HAPPENSTANCE

- Raw Data Theme: Happenstance

1. No, I think, I think I was really lucky. Timing is everything. When [Training partner]--. I remember just being in my car on the phone and I had decided to retire and I was selling real estate here actually in [city] and he goes, "Come on, you're not done, you've got more in you"... (Bob, ln 519-522, p.14)

2. And then obviously I had this virus, post-viral syndrome. I mean that was… I mean I was working through the early part of 'XX winter through to 'XX not knowing if I was a 100% fit. So, it was a very tentative start to a winter program. And the main thing was, through training quite lightly, because of this physical problem, I discovered that I got into shape with a lighter training load. (Dave, ln 603-608, p.16)

3. I went to NCAA's [National Collegiate Athletic Association's], I was third, and All-American, and all that fun stuff, and then an agent approached me and talked to me about going to Europe on the circuit. And I'm like, "What is that?" I'm like, "I'll do that. Is it lucrative? Is it lucrative enough?" So, I decided to just do it. I just went from strength to strength. (Eve, ln 179-183, p.6)

4. But, you know I was getting a lot of opposition from a lot of places, not to mention I was going through some big transitions from leaving university to going to elite level. And then, so I ended up moving down to [city] in XXXX after the trials and I've been here ever since. (Ian, ln 712-715, p.18)

5. Just made it my own self. Woke up and decided I needed something different to do. (Liam, ln 460-46111, p.13)

6. So, I just decided to go to [university] because they were the first ones to call me. (Liam, ln 468-469, p.13)

General Dimension: Factors That Could Have Improved Performances in Direct Comparison Athletes

- Umbrella Theme: PERFORMANCE ENHANCEMENT SKILLS AND CHRACTERISTICS
    - Sub-Theme: Psychological skills
        - Mental acuity

1. It's like I can train my body and my mind as much as I can train it, but mentally my mind has limitations, whereas physically my body doesn't have those limitations. I think physically my body can jump 8 feet 7 [inches] or something. You know, I don't know. 2.50 [m], 2.60 [m] I probably can jump. But, mentally I'm only saying 2.34 [m], 2.35 [m], 2.36 [m]. You know if I didn't have those mental limitations. And how do you train that? You know I can train my body as fit as it can be.- (Ian, ln 1103-1108, p.26)

2. Yah, yah I am. I mean I'm doing as much as I can. There's nothing he can say to me or give to me-. Maybe there is something that he can say to me. I don't know- that might open up my mind to allow me to start doing these things. But, for the most part it's all a mental game. Right now, at this level where we're at, 90% mental, 10% physical. Everybody trains hard and do those things that are necessary to help you to be an elite athlete physically, but people who become great is the mental strength. It's the people who have more mental. The people who won the World Championships this year, won the Olympics are not in any more shape then I am. Maybe they are a little bit stronger than I am, but not much. I'm pretty close to everything that they are doing. Maybe they might be a little faster, but not much. But, then they are jumping so much higher than I am. I'm jumping 7 feet 5 inches or 2.28 [m] through the year and they're jumping 7 feet 8 inches, 7 feet 9 inches or 2.34 [m], 2.36 [m], 2.37 [m]. What's the difference between them and me, is basically mentally they are so much more confident than I am at those higher bars. But, going to a sports psychiatrist- or psychologist is one of those things that is opening my mind to help me get there. (Ian, ln 1113-1127, p.27)

3. I could have absolutely been a mental student of this sport of track and field. That I know for sure. I know for sure. Because I know the impact it had on me in XXXX when I just wasn't physically able. I think its laziness, which is sad to say I could be that motivated and doing everything possible on the track, and then just out of sheer, "Like ahh." Because I was so fit and I was so strong, I relied so much

on that, to the detriment of using my visualization, and realization, and focusing and all that stuff that I know matters. But it was just kind of like, "Ahh. I'll just kind of do this little stuff on the side and that's good enough."… That's what I would tell anybody. (Jan, 894-905, p.22)

4. Changes in my mentality and there's just- development of a person overtime you grow. And you change that way. (Heather, ln 1322, p.31)

- Focused

1. Having to make that change to being very focused. Put the blinders on and just go. Changes in my mentality and there's just- development of a person overtime you grow. (Heather, ln 1321-1322, p.31)

2. Almost, turn your mind off and- once you make that decision, you just turn your mind off and you keep going forward with it. (Heather, ln 1358-1359, p.32)

- Perform under pressure

1. And so the way they can be released by me just being better on meet days, execute on meet days and know that what talent I have, I can run *x* time. (Kyle, ln 877-878, p.22)

- Raw Data Theme: Improve Sport Confidence

1. Because I could never truly, truly, truly erase the doubt I had in maybe my ability, my ability as an individual. There was no doubt when it came to running a relay because I was never going to disappoint my teammates. To disappoint myself that's different. (Greg, ln 1255-1257, p.30)

2. …if I could erase that doubt then I would be consistently at a certain level. (Greg, ln 1258-1259, p.30)

3. You know talking about it now, has really been able to clear- that makes sense, because that [doubt of my ability] was always there. And only when I didn't have it did I shoot up and then it would come back, and then I'd be back down here. (Greg, ln 1259-1262, p.30)

4. Definitely have to get out of the self-loathing. Like things didn't go well since XXXX, on and just being like *"This is where you're at now,"* and go straight for the goal. Rather than being *"Well, what if this happens? What if this happens? What if this happens?"* like it use to happen in the past. (Heather, ln 1317-1320, p.31)

5. And so the way they can be released by me just being better on meet days, execute on meet days and know that what talent I have, I can run *x* time. (Kyle, ln 877-878, p.22)

- Raw Data Theme: Have fun/Enjoyment

1. Because in XXXX I wasn't looking forward to anything. I was just doing it, because that's all I knew how to do. And I just want to look forward to competing. And even if I don't win, knowing that I was prepared. Getting back to how it use to be. Just having fun; even in workouts. Instead of looking at it as a workout, looking at it as an opportunity to see what you can do and then… There's times that you're laying on the ground and you are hurting so bad, but you know that in a couple of hours once you recovered "That was the greatest thing ever!" (Heather, ln 1333-1339, p.32)

2. Looking to the simpler things, that's where I want to be because things got way too complicated and heavy. And I want it to be a lighter mood. And just be looking forward to things. Instead of just sitting there and just doing things because you think you have to. I think that's the thing. (Heather, 1341-1344, p. 32)

- Raw Data Theme: Love self

1. Definitely have to get out of the self-loathing. (Heather, ln 1317-1318, p.31)

- Umbrella Theme: SKILL MASTERY AND QUALITY OF TRAINING

- Raw Data Theme: Become a student of the sport

1. I could have absolutely been a mental student of this sport of track and field. That I know for sure. I know for sure. (Jan, 894-895, p.22)

2. I think I would have studied a little bit more. Could have looked at things more objectively, as far as having an open mind. And do a little

bit more comparison in training and things like that. Be little bit more of a student of the sport. (Liam, ln 655-657, p.17)

3. When I was jumping I felt like I was jumping really well and I should have done well. But you know I had some different circumstances that ended leading me to not jumping as well as I wanted to, which is like, "Okay. It's fine." I know what not to do next year, but I think if I wasn't- because I started to lose weight and I lost too much weight right before Olympic Trials. Because my whole thing is, I wanted to be as light as I possibly could be, so I think the weight ratio should be as high as it can be. I felt very good, but I think I lost strength as well when I was losing weight, because I lost weight so fast- I lost weight within 2 weeks. A lot of weights within 2 weeks, maybe close to 10 pounds. So, that's way too much weight to be losing in 2 weeks. And so when the bar got a little higher I started to tire a little bit. The first few jumps was awesome, but when the bar got a little higher it was like I had one good jump and then it was like pretty much nothing left in the tank. [laugh] It was like, "Why aren't I jumping like I was earlier?" So, I think this year just staying at a lighter weight throughout the year consistently is going to help me; which means I've just got to be a little bit more diligent on my diet this year, and everything I've done- and I'm glad I'm saying this out loud because it's making think about it. I've thought about it, but I've never said it out loud. And everything I've done last year, with the weight program being as intense as it- and I think as great as it is, this is going to be a great year. Just continuing to stay positive. (Ian, ln 1020-1038, p.25)

- Raw Data Theme: Training modifications

1. Just identify what changes need to be made. (Heather, ln 1349, p.32)

2. Work on the strengths, obviously, and minimize weaknesses. But, just identify those things that you know you're not doing that will probably take you to the next level. (Heather, ln 1350-1352, p.32)

- Raw Data Theme: Recovery period (post Olympic Games)

1. I think back on it too and I think maybe I should have taken XXXX off, because XXXX was not a great year for me; and then XXXX was the decline of everything. I had a very sporadic year of up and down. And then XXXX I feel like it was probably one of my worst years as

an elite athlete. But, I probably should have taken 'XX off. I was pretty tired and mentally I put a lot into 'XX. I think just stepping away thing just stepping away from track and field for that year probably would have been better for me and better served me as an elite athlete to kind of renew that passion and get motivated again to want to get out there and high jump. (Ian, ln 996-1003, p.24)

2. Yah, I had some post-Olympic depression. Okay, now what? Do I start living my life? Do I keep training? Do I do what? Well, I'm at the top of my game, so I guess I keep competing. You don't really know what to do. It's like, "Well, just keep doing what you're doing." Okay. You don't put your heart and passion into it like you put in it to get there. And then you start to see things dissolve and its like, "Oh shoot. I enjoyed that. I enjoyed being on top. And it was an awesome experience. And I want to get that experience again." I'm back to fighting to try to get that experience again and do the best and be the best that I can be. (Ian, ln 1166-1173, p.28)

- Raw Data Theme: Back to the basics of training

1. Looking to the simpler things, that's where I want to be because things got way too complicated and heavy. And I want it to be a lighter mood. And just be looking forward to things. Instead of just sitting there and just doing things because you think you have to. I think that's the thing. (Heather, ln 1341-1344, p.32)

- Umbrella Theme: MOTIVATIONAL ISSUES AND GOAL ORIENTATION

- Raw Data Theme: Sustain passion

1. And I did it. And I was like, "Now what?" So in my last years I've had some ups and downs, in my last few years, but I lost a lot of passion too. I just didn't care about sports as much anymore.. (Ian, 647-649, p.17)

2. Because I accomplished all my goals. I mean main goal was just to make an Olympic team. It wasn't even to get an Olympic medal. It was just to make an Olympic team! It's so hard to make an Olympic team. For one, you have to jump the standard, which is a big thing, and for two, is get top three on the day of the Olympic Trial Final, which is to train for 4 years for one day of your life, to make or brake

you, to make the Olympic team is a very nerve racking- the Olympic trial for me was way more stressful than the actual Olympic Games in XXXX. Way more stressful. And I did a personal best at both of them…once you make the team at you're at Olympic Games, you're like, "Let's go out here and have fun" to me. Some people find it just the opposite. But, for me higher at that point and time, and being [citizen] and you know how I achieved my goals, I was just like, "I'm here! I accomplished my goal. Let me just go out here and have fun. (Ian, ln 655-673, p.17)

3. I think just stepping away thing just stepping away from track and field for that year probably would have been better for me and better served me as an elite athlete to kind of renew that passion and get motivated again to want to get out there and high jump. (Ian, ln 1000-1003, p.24)

4. Then I started figuring- I thought it was going to be easy I think too, and so when I lost the passion I thought "Oh, this is easy. I can do this. I don't really have to work hard to get to where I got to," you know, so I didn't. I still worked hard, but I didn't put that 100%- I guess the passion. I didn't have that anymore. It was just like, "I'm done with that. I wanted to do it," I guess. (Ian, ln 1007-1012, p.24)

5. But, you know I saw dollar signs of going to meets. I wanted to go to all of the Golden League meets at that point in time- now they're Diamond League meets, but I did that. There were other little goals, I kind of wanted to do so I just continued. Then I started figuring- I thought it was going to be easy I think too, and so when I lost the passion I thought "Oh, this is easy. I can do this. I don't really have to work hard to get to where I got to," you know, so I didn't. I still worked hard, but I didn't put that 100%- I guess the passion. I didn't have that anymore. It was just like, "I'm done with that. I wanted to do it," I guess. (Ian, ln 1005-1012, p. 24)

6. That's why I said one of the things I definitely have been working on these last few years is renewing that passion. It wasn't as high as it was then. (Ian, ln 976-977, p.24)

7. So, I started thinking I've got to renew this passion, which is one of the reasons I switched coaches for those couple of years. (Ian, ln 1016-1017, p.25)

- Raw Data Theme: Less outcome oriented

    1. Like things didn't go well since XXXX on and just being like *"This is where you're at now,"* and go straight for the goal. Rather than being *"Well, what if this happens? What if this happens? What if this happens?"* like it use to happen in the past. (Heather, ln 1318-1320, p.31)

    2. And once you make those decisions just go at it full force, and don't look back. Don't question. Just do what you know is right and then just… just see what happens. Don't dwell on what could have been or what should have been, just… once you make that decision to make those changes whatever they are - whether it's moving to a new training location. (Heather, ln 1352-1356, p.32)

    3. But, maybe if I wasn't so stressed at the Olympic trials I probably could have jumped higher. But, I was stressed. I was like, "Oh my God. What am I going to do? How did I get myself into this position? I know I'm like the number one jumper coming in and I should do well. But, what if I don't? What if somebody else jumps better, what if"- like I had all these things in my head. When I was younger I needed to jump higher, even if I had an awesome day and I might not make it. All these things going on in my head. (Ian, ln 664-669)

- Raw Data Theme: Less extrinsically motivated

    1. But, you know I saw dollar signs of going to meets. I wanted to go to all of the Golden League meets at that point in time- now they're Diamond League meets, but I did that. There were other little goals, I kind of wanted to do so I just continued. Then I started figuring- I thought it was going to be easy I think too, and so when I lost the passion I thought "Oh, this is easy. I can do this. I don't really have to work hard to get to where I got to," you know, so I didn't. I still worked hard, but I didn't put that 100%- I guess the passion. I didn't have that anymore. It was just like, "I'm done with that. I wanted to do it," I guess. (Ian, ln 1005-1012, p.24)

- Raw Data Theme: Actualize ability

    1. I don't feel like anything is missing. I feel like I have the tool, it's just I feel like knowing that I have the tools I have to, I have to bring them out. They have to just be released. (Kyle, ln 875-877, p.22)

- Umbrella Theme: ENVIRONMENT
    - Raw Data Theme: Environment
        1. Training environment, yes. Definitely training environment. (Heather, ln 1329, p.31)

APPENDIX F

Transcription Conventions

Table 10

Transcription Conventions

'XX, XX's, or XXXX	Represents a year, that has been concealed to protect the identity of the participant
…	Ellipses indicate pauses
becau-	A hyphen indicates an abrupt cut-off or self-interruption of the sound in progress indicated by the preceding letter(s) (the example here represents a self-interrupted 'because').
--	2 Hyphens indicates a false start.
:::	Colons indicate the lengthening of the sound just preceding them, proportional to the number of colons.
He says	*Italicize* indicates stress or emphasis.
[	Left-side brackets indicate where overlapping talk begins.
]	Right-side brackets indict where overlapping talk ends, or marks alignments within a continuing stream of overlapping talk.
((looks))	Words in double parentheses indicate transcriber's comments, non transcriptions.
[inaudible word/passage]	Inaudible– if a word or phrase is completely inaudible on the audio recording, use a bracket to not the issue
[Mr. Besthsakunka ?]	Uncertain how to spell a name or term – take best guess and put the name in square brackets with question mark, such as [Mr. Besthsakunka ?]. Use brackets only for the first appearance of the name.
[laughter]	Non-verbal responses – such as laughter in square brackets e.g., [laughter]
[National Health Service]	Explanatory remarks – add for clarity in square brackets such as, 'That was before NHS [National Health Service] came in."
you know	Is not transcribed when used as a refrain
Umm or hmm	Is not transcribed when this indicates thinking
Umm hmm	Transcribed when it indicates an affirmative – "yes"
Ah	Transcribed when it indicates understanding or realization
Yeah or Yah	Transcribed verbatim
Dates	Use numbers if the informant uses numbers. For example: What is your birth date? Four, fourteen, nineteen forty-four. Should be transcribed as 4/14/1944
'(date)	Use an apostrophe before each year when the century number has been omitted. For example: '98 flood or '33 hurricane
because	Transcribed as because
'til	Transcribed as until
Ain't	Transcribed verbatim

APPENDIX G

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