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**AN EXAMINATION OF MENTAL FACTORS ASSOCIATED WITH
EXCELLENCE IN EXCEPTIONAL JAPANESE ATHLETES:
A HOLISTIC APPROACH**

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A thesis submitted to the School of Graduate Studies
and Research in partial requirements for the degree of Master
of Sciences in Kinanthropology



Kyoko Imai, Ottawa, Canada 1995



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Abstract

This study was designed to gain a better understanding of the phenomenon of athletic excellence with regard to the mental aspects. The information was derived from the interviews with nine highly successful Japanese athletes. A thorough analysis of their experiences, feelings, and insights uncovered various mental factors underlying their athletic success. Content analyses of the interview data resulted in the identification of six main topic areas: 1) growth and development of exceptional athletes, 2) athletes' views on their sports and lives, 3) mental approaches to daily practice, 4) mental approaches to competitions, 5) psychological enhancement strategies, and 6) mental elements essential to athletic success. Based on the interview findings in these six main topic areas, a conceptual model of the mental path to athletic excellence was proposed from a holistic viewpoint. This model integrates five main components: personal qualities of the athlete, personal histories, mental strategies, nurturing experiences, and environmental variables.

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CHAPTER 1 INTRODUCTION

Athletic excellence is a complex and multi-faceted phenomenon (Howe, 1990). Achievement of athletic success involves not only a tremendous amount of effort and hard work but also a long-term developmental process (Bloom, 1985; Ericsson, Krampe, & Tesch-Römer, 1993). Despite the increasing research over the last decade related to the mental aspects of athletic excellence, much of the researchers' attention has been drawn to successful performance at competitions (e.g., Gould, Eklund, & Jackson, 1992a, 1992b; Loehr, 1983; Mahoney, Gabriel, & Parkins, 1987). Although successful execution of performance at competition is certainly a crucial aspect of athletic excellence, the process of getting there is equally important. Achievement of success is a complex phenomenon and various aspects come into play. A comprehensive holistic approach is needed to gain a better understanding of this process. This study was conducted in an effort to discover as many success elements as possible, and to draw out a conceptual model to clarify the nature and process of reaching athletic excellence.

A scarcity of research which examines the process of excellence from a holistic perspective, leaves a number of questions unanswered about the nature of athletic excellence. For example, how do athletes begin to see themselves being capable of becoming great athletes? What do they experience in the process of becoming exceptional? What makes them keep pursuing their careers? What are the essential nurturing factors? How do they perceive their lives as athletes? How do they mentally approach practice and competitions? What mental strategies do they use when they perform at their best? What are the common qualities

of exceptional athletes? and how are these aspects related to each other to sustain the pursuit of athletic excellence?

Inasmuch as only a few individuals in millions are able to attain the highest level of sporting excellence, detailed qualitative information directly derived from experiences of such exceptional athletes is essential to gain a better understanding of the nature of excellence (Dewar & Horn, 1992; Martens, 1987; Streat & Roberts, 1992). Thus, the present study qualitatively examined the phenomenon of athletic excellence with some of the worlds best performers from Japan. It is hoped that this study will provide some further insight into the nature and process of athletic excellence and draw out guidelines which may help athletes to pursue their true potential.

The central aims of this research are twofold:

- 1) To identify key mental factors associated with athletic excellence, and to describe detailed experiences of exceptional athletes that are related to the process and the nature of excelling**
- 2) To provide a conceptual model of athletic excellence from a holistic viewpoint**

The conceptual framework and method for meeting these objectives is elaborated on in the following chapters.

CHAPTER 2 REVIEW OF LITERATURE

The focus of this study was to thoroughly examine the mental aspects of athletic excellence. Given that cultural differences exist between North American and Japanese societies, both North American and Japanese literature were reviewed. Most of the relevant detailed research information came from North American literature. A review of Japanese literature clearly indicated that there was a paucity of studies related to the mental aspects of Japanese elite athletes. However, there are a limited number of Japanese references that provide useful information and insights into this area. Therefore, the following literature review were divided into two main parts. The first part presents research from the Western literature, and second part from the Japanese literature.

The North American Literature

The North American literature discussing the issues of elite athletes and/or athletic excellence could be divided into five major areas. The concept of athletic excellence is first clarified. A review of various mental elements relevant to sport success and mental strategies is then presented. Issues related to social/environmental factors and practice follow.

Definitions and Conceptualization of Athletic Excellence

In spite of the increasing popularity of the term excellence among sport psychology researchers, no clear definition of athletic excellence has yet been established. However, this concept is often overlapped with terms such as elite, expertise, giftedness, and intelligence. Rushall (1989) noted that "excellence is considered to be synonymous with performance

enhancement, success, or improvement" (p.165). Cox (1990) suggested an operational definition of an elite athlete as "one who has achieved world-class or true professional status as in the case of Olympic qualifiers and professional sport players" (p.37). Chambliss (1989) also defined excellence as "consistent superiority of performance" (p.72). He explained that: "The excellent athlete regularly, even routinely, performs better than his/her competitors. Consistency of superior performances tells us that one athlete is indeed better than another, and that the difference between them is not merely the product of chance" (p.72). Similarly, Starkes (1993) also pointed out that consistency is the critical aspect in assessing expertise.

Fisher (1984) views sport intelligence from a broader cognitive perspective. He defined it as "an interactional construct based on individuals' capacities to handle specific environmental demands" (p.47). A term bodily-kinesthetic intelligence was also introduced by Gardner (1983). He views bodily-kinesthetic intelligence to be one of the seven relatively autonomous components of human intelligence and described it as follows: "Characteristic of such an intelligence is the ability to use one's body in highly differentiated and skilled ways, for expressive well as goal-directed purposes" (p.206).

Several researchers linked cognitive/psychological factors with motor expertise (Fisher, 1984; Gardner, 1983; Garland & Barry, 1990; Salthouse, 1991). Gardner (1983) explained bodily intelligent performance from a cognitive behavioral approach:

Over the years the highly skilled performer has evolved a family of procedures for translating intention into action. Knowledge of what is coming next allows that overall smoothness of performance which is virtually the hallmark of expertise...all the time in the world to do what he wants. (p.209)

Garland and Barry (1990) stated in their summary on cognitive advantage of sport expertise that "as skill increases, the marked improvements with practice that are

characteristics of the early stages of skill acquisition no longer take place....Consequently, further improvements in performance may have to come from psychological factors" (p.1299). Referring to the term sport intelligence, Fisher (1984) argued that tasks are performed successfully when athletes understand the basic nature of their task, have appropriate attentional focus and decision making skills, such as selecting only relevant information and processing appropriate responses. Also, in discussing expertise from an information processing approach, Salthouse (1991) argued that only those individuals who were in the highest percentiles of the distribution of competence for a given activity should be termed expertise.

Orlick (1992) provided valuable information in his model of human excellence, from a mental perspective. His model was generated from extensive interviews and work with exceptional performers in sport and in other domains. He believes that commitment, belief, full focus, positive images, mental readiness, and constructive evaluation are the seven components that lead individuals to reach personal excellence. Orlick distinguished commitment and belief to be core elements from the rest of the five which were considered mental skills. Orlick's model not only displays success elements, but also suggests the interaction among the elements.

Bloom (1985) views exceptional achievement from psycho-social and developmental perspectives. He focused on excellence with respect to long-term training processes rather than present state. Based on a series of studies examining the developmental processes of exceptional performers in several domains, including sports, Bloom (1985) suggested that developmental processes of talented individuals could be divided into three main phases. The

first phase to be a stage of learning to enjoy the sport and competition with their age-mates. During the second phase, athletes develop precision and accuracy of techniques, acquire competitive skills, and build confidence and competence. At the last phase, athletes work toward perfecting the fine points of various aspects in their sports, develop a total commitment to sport, and learn to evaluate their skills. Bloom also emphasized the significant influence of social or environmental aspects in developing talent, such as support provided by family, roles and qualities of coaches, coaching styles, relationship with coaches, practice environment, and roles of teammates.

Ericsson, Krampe, and Tesch-Römer (1993) have also recently examined expert performers from a developmental point of view. On the basis of arguing the roles of practice or preparation in attaining the highest levels of success, they summarized that "expert performance as the end result of individuals' prolonged efforts to improve performance while negotiating motivational and external constraints" (p.363). Further, Ericsson and his colleagues stated that "Many characteristics once believed to reflect innate talent are actually the result of intense practice extended for a minimum of 10 years" (p.363).

For the purpose of this study, further studies supporting the contribution of mental aspects were briefly reviewed (Orlick & Partington, 1988; Rushall, 1989; Silva, Shultz, Haslam, Martin, & Murray, 1985). The mental aspects here referred to approaches centering on psychological, cognitive, socio-psychological, or developmental perspectives, as opposed to the physical aspects, such as physiological, biomechanical, or neurological approaches.

Silva and his colleagues (1985) assessed a number of psychological and physiological capacities in free-style and Greco-Roman-style wrestlers at the United States Olympic

Wrestling Trials. The result showed that psychological variables discriminated Olympic qualifiers from non-qualifiers with 78.1% of accuracy, whereas only 60.1% was explained on physiological variables.

Rushall (1989) designed a quasi-experimental study with Olympic swimmers and World Cup ski jumpers to examine the effect of psychological interventions on performance. The results with both swimmers and jumpers showed the positive effect of mental strategies on performance. Rushall stated "...psychology determines how well the finite contributions of physiology and biomechanics are used" (p.167).

Orlick and Partington (1988) found that mental factors separated successful performers from less successful performers in a quantitative and qualitative study of 235 Canadian Olympic athletes. In their quantitative study, the athletes were asked to rate their degree of physical, technical, and mental readiness on 10-point Likert scales just before their final event or most crucial heat at the 1984 Olympics. Stepwise linear regression of the three variables showed that only mental readiness provided statistical significance with final Olympic ranking.

In summary, a review of the concept of athletic excellence revealed that this phenomenon is multi-faceted, and could be defined in terms of physical, mental, cognitive, technical, social or developmental perspectives. It is noteworthy that recent studies indicated athletic excellence was not only attributable to physical and mental attributes of athletes, but also to developmental processes. The review also exhibited that mental factors were closely linked with athletic excellence. The next section will examine what specific mental elements may contribute to athletic success.

Mental Elements Relevant to Athletic Success

A growing number of studies have attempted to identify the mental elements relevant to sport success. Until the early 1980s, studies on athletic excellence were conducted mainly on the basis of administering a questionnaire, often asking study participants to self-rate on certain question items (e.g., Gould, Weiss, & Weinberg, 1981; Highlen & Bennett, 1979; Mahoney & Avenier, 1977; Meyers, Cooke, Cullen, & Liles, 1979). However, as Heyman (1982) commented, this type of research considered only a limited number of variables associated with sport success. During the last decade, in turn, qualitative data, often collected by means of interviews, has been the mainstream of the research design in the study area, in order to gain detailed information. The majority of studies investigated characteristics of elite athletes or successful performance, although there are a few elite studies which examined other issues, such as sources of stress or enjoyment, development of talent, or practice (e.g., Bloom, 1985; Ericsson et al., 1993; Gould, Jackson, & Finch, 1993a, 1993b; Scanlan, Stein, & Ravizza, 1989, 1991). Studies discussing mental aspects relevant to athletic success comprise several different issues, including characteristics of elite athletes or successful performance, peak/flow performance or experience, or success elements in overall. The studies examined such issues mainly in terms of mental states, mental skills, and/or mental strategies. However, as Vealey (1988) commented, earlier studies overlooked the distinctions among these three mental aspects and dealt with them as a whole package called "factors", "characteristics" or "elements". Consequently, findings of different study focus often overlapped with each other. Thus, these were unified in one topic area to review.

Researchers investigating this study area utilized several methods, such as eliciting in-

depth knowledge on successful performance from elite athletes, a comparison of successful/best versus poor/worst performances of elite athletes, a comparison between the very best performers and less than best performers, or a novice-expert comparison. The majority of the studies attempted to identify essential factors within a scope of competition-specific context. A summary of findings of 12 major studies, regarding factors of athletic success, along with focus of study, subject, data collection method, and data analysis method are presented in Table 1.

One of the initial studies examining athletic success was conducted by Mahoney and Avenier (1977). They administered a 53-item questionnaire, regarding personality, self-concept, and strategies employed in training and competition, to 13 male gymnasts who were the finalists in the Olympic trials. Their results showed that Olympic qualifiers coped well with mistakes, better controlled anxiety, were more self-confident, had more positive self-talk, had more gymnastic related dream, and used more internal mental imagery than nonqualifiers. Meyers and associates (1979) utilized a similar research design, and their results were generally consistent. Mahoney and his colleagues (1987) also conducted a similar study with a large number of subjects, including elite, pre-elite and non-elite athletes from 23 sports and sport psychologists. Omnibus, individual item, discriminant, regression, factor, and cluster analyses revealed significant differences between elite and non-elite athletes in six mental skills. Those six relevant mental factors were concentration, anxiety management, self-confidence, use of internal/kinesthetic imagery, focus on individual performance, and high motivation to do well.

Table 1

A Summary of Mental Factors associated with Athletic Success Identified in 12 Studies

Study	Mahoney et al. (1977)	Mahoney et al. (1987)	Orlick & Partington (1988)	Orlick & Partington (1988)	McCaffrey & Orlick (1989)	Loehr (1983)
Mental Factors/ Elements/ Characteristics/ Skills/ Strategies/ Condition	-coping well with mistakes -anxiety management -positive self-talk -sport-related dream -internal imagery	-concentration -anxiety management -self-confidence -internal kinesthetic imagery -focus on individual performance -motivation to do well	-total commitment -quality training -quality mental preparation for competition	-full focus -high intensity -appropriate arousal -clear & present awareness -no distraction -confidence -determination -positive self-talk -feeling in control	-commitment -quality practice -clear goals -imagery practice -focus -coping with pressure -practice plan -tournament plan -tournament focus -distraction control -post-tournament evaluation -clear understanding of what works & doesn't work	-self-confidence -being focused in present -feeling in control -enjoyment -optimistic -feeling energized with inner calmness -heightened awareness -feeling effortless/automatic -low anxiety
Study Focus	characteristics of successful athletes	characteristics of successful athletes	success elements	success elements	success elements	ideal mental states of successful performance
Subject (Data Source)	13 men's gymnastics Olympic trials finalists	126 elite, 141 pre-elite, 446 collegiate athletes from 23 sports & 16 sport psychologist	75 Olympians	160 Olympians	14 top professional golfers & 9 teaching professionals	43 athletes from 7 sports
Data Collection Method	11 point-Likert questionnaire/ interview	51-item questionnaire	interview	questionnaire including open-ended questions	interview	questionnaire including open-ended questions
Data Analysis Method	pearson correlation/ comparison between Olympic qualifiers and nonqualifiers	omnibus, individual item, discriminant, regression, factor and cluster analyses	content analysis	content analysis	content analysis	content analysis

Table 1 (continued)

Study	Jackson (1992)	Gould et al. (1992)	Williams & Krane (1993)	Orlick (1992)	Bloom (1985)	Nelson (1987)
Mental Factors/ Elements/ Characteristics/ Skills/ Strategies/ Condition	-confidence -positive self-talk -high motivation to do well -being relaxed -controlling anxiety -enjoyment -appropriate focus -physical readiness	<u>BEST</u> -adherence to mental preparation plan/ routines -confidence -focus -optimal arousal -tactical strategy - focused <u>WORST</u> -no confidence -inappropriate feeling/ task irrelevant or negative thoughts -deviation from preparation plan	-self-regulation of arousal -self-confidence -concentration -in control -positive preoccupation with sport -determination/ commitment	-commitment -belief -full focus -positive images -mental readiness -distraction control -constructive evaluation	-early exposure to success -developed confidence/ competence -lengthy commitment to or interest in pursuit -social support	-commitment to learning -clarifying value of sport -understanding sources of motivation/ belief -eliminating motivation inhibitors -acquiring attitudes, belief, emotions -enhancing performance -adhering to effective training -creating supportive environment
Study Focus	flow/ peak performance	mental preparation & thoughts/ affect occurring before & during competition	characteristics of successful performance	mental elements of human excellence	development of talent	mental skills for athletic success
Subject (Data Source)	16 former US national champion figure skaters	20 US Olympic wrestling team members	literature	highly successful individuals from several domains including sports	highest achievers from 7 domains including athletes, and their teachers & parents	personal experience
Data Collection Method	interview	interview	literature review	extensive consulting work & interviews	interview	
Data Analysis Method	content analysis	content analysis			content analysis	

A considerable number of studies examined mental state of peak/flow performance or experience (e.g., Cohn, 1991; Csikszentmihalyi; 1975, 1990, 1991; Garfield, 1984; Jackson, 1992; Ravizza, 1977). Jackson (1992) interviewed 16 former U.S. national champion figure skaters and identified eight factors associated with flow experience: confidence, positive thinking, high motivation to do well, being relaxed, controlling anxiety, enjoyment, appropriate focus, and physical readiness. A study by Loehr (1983), identifying ideal mental states of successful performance, exhibited similar results. In his study, 43 athletes from seven sports were asked to rate the level of their play immediately after a competition and to describe their internal psychological experience. They were also asked to recall the best and worst performances to describe what the psychological experiences were like. Through systematic analyses, Loehr determined nine mental states of ideal performance, including: self-confidence, focused in present, feeling in control, enjoyment, optimistic, feeling energized but with inner calmness, heightened awareness, feeling effortless or automatic, and low anxiety. These items were generally consistent with other research on peak/flow performance.

Orlick and Partington (1988) surveyed 160 Olympians using a questionnaire. As a part of the questionnaire survey, the athletes were asked to write reports on their focus level before or during competition at the Olympics as well as at their previous best international performance. Qualitative analyses revealed that the following aspects characterized the optimal state: full focus, high intensity, appropriate arousal, clear and ever-present awareness, no distraction, confidence, determination, positive self-talk, and feeling in control.

Orlick and Partington (1988) also interviewed 75 Olympic athletes to identify elements of success. In the individual interviews, the athletes were asked to describe their

attentional focus before and during the Olympics and previous best-ever international competitions. Through content analysis, they identified certain aspects as common among successful athletes. Among these were total commitment, quality training (extensive use of imagery training, simulation training, & daily goal setting), and quality mental preparation for competition (pre-competition plan, competition focus plan, competition evaluation, & distraction control). Similar to these findings, McCaffrey and Orlick (1989) interviewed 14 top professional golfers and nine golf teaching professionals. Their content analysis demonstrated significant difference in 10 elements between top tour professionals and club professionals: commitment, quality practice, goal setting, imagery, practice and pre-tournament plans, tournament focus plan, distraction control, post-tournament evaluation, and understanding of what works and does not work for oneself.

Gould, Eklund, and Jackson (1992a, 1992b) interviewed 20 U.S. Olympic wrestling team members to examine mental preparation strategies, thoughts and affect occurring before and during competition, with regard to the best-ever and worst-ever performances to date. Content analysis identified that, at their best-ever performance, the athletes adhered to mental preparation plans or routines, were confident, were focused, were optimally aroused, focused on tactical strategies, whereas at their worst performance, they were not confident, had inappropriate feelings or task-irrelevant or negative thoughts, and had deviated from their preparation plan.

Williams and Krane (1993) reviewed the literature related to mental aspects of peak performance or sport success. They concluded that six characteristics appeared to be linked with successful performance. The characteristics are self-regulation of arousal, self-

confidence, concentration, feeling in control, positive preoccupation with sport, and determination/ commitment.

Orlick (1992) proposed a model of psychology of human excellence. Based upon his extensive interviews and work with exceptional performers in sport and in other domains, he identified seven elements of human excellence: commitment, belief, full focus, positive images, mental readiness, distraction control, and constructive evaluation. The advantages of Orlick's model are that it covers a broader context, rather than competition-specific settings or sport-specific context. The model also indicates the interactions among each components.

In contrast to the previously mentioned studies, Bloom (1985) aimed to examine excellence from a developmental point of view. Bloom and his associates conducted extensive interviews with high-level achievers from six different fields, including athletes. What Bloom (1985) found to be common among these highest achievers were early exposure to success, developed confidence and competence, and lengthy commitment to and/or interest in their own pursuit. Furthermore, he emphasized that environmental aspects, such as social support from family and relationship with coaches or teammates, are important factors in developing the level of performance to the highest.

Finally, Nelson (1987), based on his own experience as an athlete, suggested mental skills relevant to athletic success with a broader view. The suggested mental skills could be categorized into seven aspects: commitment to learning, clarifying personal value or reward of sport, understanding and identifying sources of motivation and belief, eliminating the motivation inhibitors, acquiring attitudes, belief, and emotions that enhance performance, adhering to effective training, and creating supportive environment.

The review of mental elements of athletic success clearly showed that focus of the previous excellence research was heavily on a competition-specific setting, or successful performance among athletes at a mastery stage, rather than an overall mental elements necessary to excel at sport or a long-term process leading athletes to success. Elements most commonly mentioned in the previous studies are belief/self-confidence, focus/ concentration, commitment, positive attitude, mental preparation strategies, and stress/distraction control.

Mental Strategies for Athletic Success

Mental strategy has been one of the central issues in sport psychology research. Information was often derived from athletes' experiences in examining mental factors relevant to athletic success. However, most researchers did not clearly distinguish the mental skills from mental strategies. Vealey (1988) recommended, in her discussion of future directions in psychological skills training, the need to differentiate skills from methods. As Vealey (1988) stated, "psychological skills are like physical skills --they can be taught and learned to a certain degree...psychological skills training [or mental strategies] are coined to describe techniques and strategies designed to teach or enhance mental skills that facilitate performance and a positive approach to sport competition" (p.319). With this definition, mental skills and mental strategies mentioned in the previous research were separated. In this section, nine main types of strategies generally recognized, including: mental imagery, goal setting, planning, evaluation, simulation, refocusing, self-talk, relaxation, and energizing, are briefly discussed.

Mental Imagery

Mental imagery is one of the most commonly suggested strategies (e.g., Albinson & Bull, 1988; Bacon, 1990; Botterill & Winston, 1984; Cox, 1994; Gould et al., 1989; Harris & Harris, 1984; McCaffrey & Orlick, 1989; Murphy & Jowdy, 1992; Orlick, 1990; Suinn, 1993; Vealey, 1986b). The nature of mental imagery involves all the senses; seeing, hearing, smelling, tasting, touching, and feeling (Vealey, 1986b). However, kinesthetic and visual imagery are the two main types of imagery (Murphy & Jowdy, 1992). Imagery perspectives, whether external or internal, are another key issue in discussing the nature of imagery. External imagery refers to images that a person is viewing him/herself as an external observer, involving a visual sense. Internal imagery involves images that a person is experiencing a imagery scene from an internal perspective, mainly involving kinesthetic sense. Several studies concluded that more highly skilled athletes tended to imagine with an internal perspective and less skilled athletes with an external perspective (Mahoney & Avenier, 1977; Rotella, Gansneder, Ojala, & Billing, 1980; Mahoney et al., 1987).

"Mental imagery skills are used to create positive feelings about one's capacity, to pre-experience and re-experience positive actions, events or performance, and to experience the feelings and sensations which accompany the successful execution of important procedures, skills or actions" (Orlick, 1992: 115). Moreover, Murphy and Jowdy (1992) reviewed literature on imagery and mental practice, and identified seven possible applications of imagery-based techniques: skill acquisition (learning a new skill), skill maintenance (long-term retention of the learned skills), arousal regulation (relaxation & psyching-up), planning/event management (technical preparation for upcoming competition), stress

management (rehearsing emotional responses to competitive situations), self-image manipulation (gaining confidence of oneself), attentional and pain control (injury rehabilitation & coping with pain). One of the greatest advantages of imagery is that athletes are able to recreate high quality and high intensity performance as many times as they want without physical fatigue.

Goal Setting

Goal setting is another most widely accepted strategy in sport domain (e.g., Albinson & Bull, 1988; Burton, 1992, 1993; Botterill & Winston, 1984; Cox, 1994; Gould, 1986; Gould, Tammer, Murphy, & May, 1989; Harris & Harris, 1984; McCaffrey & Orlick, 1989; Orlick, 1986, 1990). Some researchers classified types of goals (Burton, 1989; McClements, 1982; Martens, 1987). McClements (cited in Gould, 1993) distinguished subjective goals (e.g., having fun, trying one's best), objective goals (e.g., winning a championship), and specific objective goals (e.g., specific record). Martens (1987) and Burton (1989) also made distinctions between outcome goals and performance goals.

The consensus of available goal setting research suggests that goals are mostly to be effective when they are specific, challenging, but realistic (e.g., Burton, 1993; Gould, 1983; Locke & Latham, 1990; McCaffrey & Orlick, 1989; Orlick, 1986). As well, combining long-term goals, short-term goals, daily training goals, and dream goals is suggested as effective goal setting (Gould, 1993; Orlick, 1986). These prompt greater intensity of effort and persistence as well as preventing premature discouragement (Bandura, 1986; Burton, 1993; Lock & Latham, 1990). Moderators of goal setting effectiveness identified are athlete's ability or skill levels, commitment or achievement motivation, feedback, and task complexity

(Lock & Latham, 1990).

Planning

A limited number of studies have suggested the use of planning (e.g., Albinson & Bull, 1988; Botterill & Winston, 1984; Gould et al., 1992a; McCaffrey & Orlick, 1989; Orlick, 1986; Orlick & Partington, 1989). This planning may involve training plan, pre-competition plan, and competition focus (performance) plan. An effective training plan usually involves an individualized specific plan along with use of other techniques such as mental imagery or goal setting (McCaffrey & Orlick, 1989). A basic pre-competition plan consists of a psychological warm-up combined with physical warm-up and an appropriate pre-start focus (Orlick, 1986). Systematic routinization of actions and thoughts prior to performance may help maintain one's focus and mental readiness (Gould et al, 1992; Orlick & Partington, 1988). According to Orlick (1986), a performance plan should be based on a focus plan and may include event focus--- planning focus cue words for each critical point in an event, and event refocus--- being prepared for any potential distractions.

Performance Evaluation

The number of studies stressing the importance of evaluation is limited (McCaffrey & Orlick, 1989; Orlick, 1986, Orlick, 1992). Performance evaluation allows an athlete to further improve the quality of his/her performance, through reflecting upon good and bad aspects of performance and drawing out lessons from those reflections. It is important for athletes not only to have an effective performance evaluation procedure but also to act upon those lessons drawn from the evaluations on a regular basis (Orlick, 1986, 1992).

Simulation

Although a few researchers have mentioned the usefulness of simulation, little scientific research is available regarding this strategy (Chamberlin & Lee, 1993; Orlick, 1990). Simulation refers to practicing under circumstances that are physically and mentally as similar to real competitions as possible. In simulating performance of a competition, the athlete can pre-experience distractions that possibly arise in a competition, which gives an athlete greater confidence and a mental readiness state in the real competitive situation (Chambliss, 1989; Orlick, 1990).

Chamberlin and Lee (1993) briefly reviewed literature on simulation and suggested the possibility of effective implementation of simulation in sport contexts. The majority of knowledge comes from industrial research on pilot training by which mechanical devices are utilized, such as videographic simulators. Although the effectiveness of mechanical simulators is questionable in a competitive sport setting, a minimal number of studies demonstrated that effectiveness of simulation partially depends on the person's skill levels. The consensus of available simulation research generally suggests that high fidelity simulation is more effective for advanced performers. High fidelity simulation may overwhelm the beginner, so that it is not effective for enhanced learning.

Refocusing

Refocusing is a technique or a way of anticipating and coping with problems when they arise (Vealey, 1988). Maintaining an effective focus or refocusing is a critical part of performing to one's capacity. Whether one can maintain and/or regain a positive perspective and effective focus on one's task when faced with distractions, negative input, setbacks, or

loss makes not only one's performance quality but also one's performance consistency different (Orlick, 1992). Practicing with full focus and refocus on a daily basis is the key to performing well consistently in competitions.

Positive Self-talk

Positive self-talk is a commonly recognized cognitive strategy among sport psychology researchers (e.g., Bacon, 1990; Bunker, Williams, & Zinsse, 1993; Gould et al., 1989; Harris & Harris, 1984; Suinn, 1983), although the amount of research examining this strategy is limited. Positive self-talk is the simpler form of self-suggestion or hypnosis. Self-talk is a mediator of our thoughts. Thoughts are a spontaneous function of human beings, as Bunker and her associates (1993) stated:

We all spent vast amount of time talking to ourselves. Much of the time we are not even aware of this internal dialogue...thoughts directly affect feelings and ultimately actions. In appropriate or misguided thinking usually leads to negative feelings and poor performance first as appropriate or positive thinking leads to enabling feelings and good performance. (p.225)

Positive self-talk is found to be a multi-purpose strategy. A few researchers suggested effective use of self-talk, and identified several possible implementations, including: attention control, confidence, skill acquisition, psyching-up, relaxing, performance preparation, creating affect or mood, changing bad habits, and controlling effort (Bunker et al., 1993; Harris & Harris, 1984).

Relaxation

Relaxation techniques are generally employed to lower the highly activated physical and/or mental states. Several relaxation methods have been suggested. Breathing exercises,

progressive relaxation, autogenic training and listening to available relaxation tapes are most common. A breathing exercise is one of the easiest relaxation exercises to control (Harris, 1986; Harris & Williams, 1993). "Learning to take a deep, slow, complete breath will usually trigger a relaxation response" (Harris, 1986: 190).

Progressive relaxation exercises were developed by Jacobson (1930). They consist of a series of exercises that involve contracting a specific muscle group, holding the contraction for several seconds, then relaxing. The exercises progress from one muscle group to another. Repeated exercises of contracting and relaxing muscles teach an awareness and sensitivity to what muscular tension and relaxation feels like.

Autogenic training was developed by Schults in the early 1930s (cited in Harris & Williams, 1993). It consists of six training stages. The initial two stages proceed a series of exercises to produce two physical relaxed sensations, warmth and heaviness. Then, one goes on to controlling heart rate, breathing rate, feeling warmth in the upper abdominal area, and finally, feeling coolness of the forehead. In some cases, autogenic training may be combined with visualization.

Energizing

In contrast to relaxation, energizing is a strategy that generates "energy on short notice or when brief bursts of energy are needed" (Harris & Williams, 1993: 196). Although no systematic technique of increasing activation levels has been developed, several "psyching up" strategies such as the use of self-motivating verbal cues, thought control, goal setting, energizing imagery, breathing exercise, listening to music, or using distraction were suggested, believed to facilitate activation response (Cox, 1990; Harris, 1986; Harris &

Williams, 1993).

As a whole, the nine strategies described here are the techniques often employed by elite athletes or implemented by sport psychologists. A few researchers pointed out that personalizing mental techniques is important for more effective use (Eklund, Gould, & Jackson, 1993; Vealey, 1988).

Social/Environmental Factors

Although most researchers focused on personal factors in their examination of athletic success, a limited number of researchers have looked into social/environmental factors. Social/environmental factors may include coach-athlete relationship, relationships with teammates, and support provided by coaches, teammates, or family.

Most research examining the influence of social support or factors on individuals comes from health studies, conditions in which individuals are faced with illness, injuries, or life stress. Several researchers, from a health study point of view, attempted to identify and classify types of support (Albrecht & Adelman, 1984; Pines, Aronson, & Kafry, 1981; Rosenfeld, Richman, & Hardy, 1989; Hardy et al., 1991; Hardy & Crace, 1993). For example, based on the work of Pines, Aronson, and Kafry (1981), Hardy and Crace (1993) grouped supportive behaviors into eight categories: listening support, emotional support, emotional challenge, task appreciation, task challenge, reality confirmation, material assistance, and personal assistance. Albrecht and Adelman (1984) also proposed five types of support: expressing emotional support, appraisal support, giving information, offering emotionally sustaining behaviors, and listening to the concerns and feeling of others.

Although these studies have provided valuable information on supportive behaviors of

the third parties, types of support athletes receive are broader than these classifications. It is so because athletic success is a complex phenomenon resulting from long-term development, and the goal is beyond overcoming difficulties or pursuing well-being, but excellence. The following pages will briefly examine in terms of sport-specific context; roles and influences of coaches, teammates, and family, respectively.

Coaches

The primary group of people influencing athletes' success is the coaches, since coaches are the persons with whom athletes interact on a daily basis in training, in competitions, and while travelling, and who teach them the basic sport skills as well as the way of athlete-being. With regard to the coach-athlete relationship, ideally "there has to be a matching of several different aspects [between coaches and athletes], including aims, respect, commitment, and communication" (p.61), as Hemery (1986) pointed out. Hemery continued that mutual respect of each other reflects both coach's and athlete's confidence. Several studies revealed that incompatibility with coaches can result in athletes' decision to leave their sports (Burton & Martens, 1986; Robinson, & Carron, 1982).

In terms of supportive behaviors of coaches, Rosenfeld, Richman, and Hardy's (1989) study revealed that the type of support provided by coaches was more often technical expertise rather than emotional. Cox (1990) noted that "an athlete's motivation, success, and satisfaction are enhanced when the coach helps the athletes to perceive his or her role as meaningful and autonomous. Performance feedback is also important for player success and motivation" (p.412). Ericsson and his associates (1993) agree with this view, by saying: "In the absence of adequate feedback, efficient learning is impossible and improvement only

minimal even for highly motivated subjects" (p.367).

Orlick and Partington (1988) in their study with the Olympians also stated that coaches can play a meaningful role in helping athletes with their mental readiness for major events. Unfortunately, however, Orlick and Partington (1988) also revealed that coaches were not always effectively helping athletes to reach their potential.

Bloom (1985) examined the roles of coaches from a developmental point of view. He stated that athletes need different coach's qualities or different kind of instruction for different phases of a learning. He divided a course of learner's career into three phases. In the early years, athletes typically need teachers who provide them a sense of fun, enjoyment, or excitement in the field. During the middle years, main roles of teachers are to provide technical instruction or to teach specific skills related to the field. Teachers of the later years are to be competent in the field, and required to have a high standard of expertise in the field.

Teammates

The second social factor which may be related to athletes' performance is the relationship among team members. There are only a few studies that provide relevant information in terms of the influence of teammates on athletic success or athletes' well-being. Rosenfeld and his colleagues (1989) reported that two main types of support from teammates were providing technical challenge and sharing social reality.

In a series of studies conducted by Bloom and his associates, Kalinowski (1985) discussed the roles of teammates in swimming from a developmental perspective. He stated that teammates are important in the early years because teammates keep athletes excited about their sports and wanting to be a part of it. In the middle years, or at junior ages, teammates

were to help get through painful demanding training on a daily basis. In the later years, or at the mastery stage, teammates provided rigorous standards in daily practice. Kalinowski particularly stressed the importance of such roles in the later years. He argued that swimmers in this study "benefited crucially from competing on a day-to-day basis (in practice) with their teammates. The simple fact of the matter is that no one but these (better) teammates could breathe life into the world-class standards our swimmers had to meet; no one else could make them so immediate, so tangible, so compelling" (pp.186-187). In addition, Sosniak (1990) pointed out that, at the developmental stage, or at the junior stages, roles of other competitors, particularly those who are older, can be the role models or goals to be achieved in the future.

Family

The third social factor is the family or partner support. Hemery (1986) reported that almost every elite athlete he interviewed thought their parents were supportive, encouraging, and not "pushy". As well, psychological support such as encouragement and understanding were the main types of support from a partner. Rosenfeld and his colleagues (1989) found that main types of support provided by family were non-technical expertise, but rather emotional support, as opposed to that of coaches or teammates. On the other hand, Bloom's (1985) study indicated that parents were extensively involved in their children's (and perhaps their own) athletic pursuit. Parents' commitment of time and effort to their children's sport was significant. His study revealed that parents provided their children such direct support as giving appraisal, giving transportation, travelling together, providing financial resources, giving hand-in-hand lessons, monitoring children's progress, giving special considerations for nutrition, or finding coaches. Bloom's study also showed that as athletes' skill levels

progressed, parents roles mainly became providing financial resources and emotional support.

In summary, although a considerable number of researchers have written about effective coaching behaviors, the information centering on the roles of teammates and family was found to be fairly limited. However, several studies illuminated the significant influences of third parties on success in sports. The review also indicated that different groups of people provided different types of support. Further, studies by Bloom and his colleagues indicated that the changes in types of support or roles of the third parties was found to be important.

Practice

Despite the fact that practice takes up a large portion of athletes' lives, particularly at the elite levels, research on practice is surprisingly little. Only a few studies have attempted to examine excellence from a practice context with mental and/or developmental perspectives, but not technical.

The most extensive study on practice to date is that of Ericsson and his colleagues (1993). They examined the importance of deliberate practice from a developmental point of view. They defined deliberate practice as "a highly structured activity, the explicit goal of which is to improve performance," (p.368) in contrast to play or recreational levels of activities. Ericsson and his associates continued: "The goal of deliberate practice is not 'doing more of the same.' Rather, it involves engaging with full concentration in a special activity to improve one's performance" (pp.390-391). This importance of training with the highest degree of quality was also clearly outlined in few other studies (Feigley, 1984; McCaffrey & Orlick, 1989; Orlick & Partington, 1988). Orlick and Partington (1988) specifically reported that the best athletes mentally prepared for training, set clear daily goals, and frequently

employed imagery as well as simulation training. Similar aspects were reported by McCaffrey and Orlick (1989) in their study of golfers.

Silva (1990) termed this positive reinforcement in training as "positive training stress". He defined the term as "to extent the boundaries of a capacity in such a manner that an increase in the capacity is gained via positive adaptation to the imposed demands" (p.7). On the other hand, once athletes cross the boundaries, Silva calls this "negative training stress". Negative training stress occurs when an imbalance exists between imposed training demands and athletes' coping capacities. If overtraining is sustained for certain periods of time, it can eventually result in burnout, in turn, withdrawal from sport participation. The importance of avoiding overtraining were mentioned by several researchers (Ericsson et al., 1993; Feigley, 1984; Nelson, 1987; Orlick, 1992; Rushall, 1989; Silva, 1990).

A Summary of the North American Literature Review

A review of the North American literature indicates that there seem to be common mental factors associated with athletic excellence. The majority of studies dealt with mental factors contributing to successful performance and psychological enhancement strategies, whereas the number of studies focusing on developmental factors, roles of third parties, and practice is small. Furthermore, no study has integrated all these factors to explain athletic excellence.

The Japanese Literature

Although the issue of mental training for athletic success was primarily raised in the early 1960s in Japan, it has only been since the 1980s that Japanese sport researchers began

to study mental aspects of athletic excellence. Between the 1960s and the 1980s, a clinical approach (e.g., sport personality testing) represented the mainstream of research studying psychological dimensions of athletes. With the discovery that sport personality has little relevance to the improvement of sport performance, researchers began to examine the mental factors and strategies of high-profile athletes in an effort to further the understanding of athletes' performance.

The following Japanese literature review briefly discusses two topic areas relevant for the purpose of this study, namely: the historical views of the mental aspects of sport performance, and the mental factors of athletic excellence.

The Historical Views of Mental Aspects of Athletic Performance

Sport is the art of mastering not only physical and technical skills but also mental skills (Funakoshi, 1988). The idea seems to have originated with the traditional philosophy of Japanese martial arts (Funakoshi, 1988; Newman, 1989). Newman (1989) noted "kyudo (the way of the bow) [and other martial arts] is practised in Japan as a physical and mental discipline, as well as a sport" (p.154). Thus, sport was a means of improving mental discipline rather than mental discipline being a means of sport success.

It was just before the 1964 Olympics that Japanese sport researchers initially considered the importance of mental aspects in sport performance. Two aspects, improving mental toughness and preventing competitive anxiety, were particularly considered as essential. In terms of mental toughness, according to Ochiai and Unno (1985), the athletes who participated in the 1964 Olympics perceived that this factor was the most essential mental factor to sport success. At that time, the mental toughness of athletes was generally

considered to be improved through long and torturous training and to be taught by coaches as an educational goal (Matsuda, 1985, 1986; Salmela, 1992).

In terms of competitive anxiety, Japanese sport researchers focused on competitive anxiety as a cause of poor performance of Japanese athletes in international competitions. Competitive anxiety was regarded as a result of excessive tension which could not be controlled. In order for athletes to cope with anxiety in competitions, autogenic training and progressive relaxation training were introduced to some of the 1964 Olympics participants.

It is only recently that sport researchers began to investigate mental aspects of sport performance and discovered that traditional Japanese sport philosophy--- sport as a training of physical and mental discipline is no longer the central notion (Ochiai & Unno, 1985).

Mental Factors of Successful Performance

Two key projects that examined the mental factors of elite Japanese athletes have been recently undertaken. The first one is a set of the investigations related to the Taikyo Sport Motivation Inventory (TSMI) (Matsuda et al., 1980-82) and the second one is the Athletes' Mental Management Project (Matsuda et al., 1985-88; Inomata et al., 1990).

The TSMI Project

In terms of the TSMI project (Matsuda et al., 1980-1982), a Japanese sport psychology research group first assumed that 'motivation' is the central factor enhancing sport success, affecting other mental factors as well as sport success. Consequently they decided to create an inventory to help improve athletes' performance through the assessment of motivational factors. In the initial process of creating the inventory, the key components of competitive

motivation were determined through the administration of a motivation survey to coaches and athletes (Ochiai, 1980). Thirty seven high-profile coaches and 35 athletes from 24 different sports answered the open-ended questions about the characteristics of motivated and unmotivated athletes. The results showed that, on the whole, according to these coaches and athletes, characteristics such as focus, enthusiasm, creativity, planning, and having clear goals were common descriptions of motivated athletes.

Based upon the results of the above study and other research, 17 factors were included in the final inventory which measured the athlete's overall motivation for competitions. Those 17 factors could be divided into five main categories: 1) achievement motivation and its practice, 2) negative perspectives in competitions, 3) self-control skills, 4) athletes' acceptance of coaches, and 5) attitude towards life and sport.

Kaga and Inomata (1982) tested the TSMI with athletes who participated in the Asian championships and compared the results with a sample from the general population. They reported that scores of factors in achievement motivation and its practice category, as well as self-control skills category, among the athletes were all higher than those of the general sample. On the other hand, scores of negative perspectives in competitions category were lower than those of the general sample. Scores in acceptance of coaches were relatively lower than those of the general sample. The above results were mostly consistent with the later study conducted with athletes who were considered for the 1988 Olympics (Sugihara & Fujimaki, 1987). Although the TSMI is a useful tool to determine athletes' motivational pattern to competitions, it is limited in its ability to describe the essential mental components of elite athletes.

The Athletes' Mental Management Project

In the athletes' mental management project (Matsuda et al., 1985-88), Ochiai and Unno (1985) conducted a study to understand the elite Japanese athletes' perceptions of mental aspects of sport performance and the general use of mental training. Athletes who participated in the 1984 Olympics or the Asian championships were asked to rank the relative importance of physical, mental, and technical skills. The results showed that mental skills were considered to be more important in competitions than two other skills. However, mental training was considered to be less important than technical and physical training and practiced less in reality.

Even though most athletes did not spend much time on mental training practice separate from physical and technical training, they integrated mental training practice into physical and technical training. The main mental skills and strategies used by these athletes, for instance simulation training, practice with focus, and challenging one's limits or difficult techniques, were described. Among those who employed mental training separately, mental imagery and self-talk or self-suggestion were the two major techniques used.

In another study with the 1988 Olympic athletes, Sugihara and Fujimaki (1988) asked athletes to rate the extent to which each of 14 mental skills were important in their mental preparation for the Olympics. The highest skill rated was focus, followed by self-confidence, fighting spirit, relaxation, courage, tenacity, self-control, determination for winning. The lowest rated skill was prevention of anxiety. Mental toughness, prediction, and teamwork were also rated low. The finding that focus and self-confidence were the highest rated skills needed was consistent with Sugihara and Fujimaki's (1987) earlier results. Sugihara and

Fujimaki (1987) also demonstrated similar perceived needs of mental skills among the 1988 Olympics candidates to improve the level of their performance.

Yamamoto (1990) examined the perceived importance of mental skills among university volleyball teams using the same methodology as that in Sugihara and Fujimaki's (1987, 1988) studies. The skill rated highest was focus, followed by tenacity, teamwork, fighting spirit, judgement, self-confidence, and courage. Skills that were rated lowest were prevention of anxiety, relaxation, mental toughness, prediction. It is noticed that the findings of this study with team sport differed from those of studies with non-specified sport athletes (i.e., studies with athletes from various sport contexts: individual, pair, and team sports), particularly on teamwork and self-confidence.

The athletes' perceptions of important mental skills seem to have changed recently. For example, the mental skills such as prevention of anxiety and mental toughness that were considered to be important in the 1960s appeared as the lowest rated skills in both team sport and non-specified sport studies in more recent studies. Although these results certainly provided some information about mental skills and strategies of Japanese athletes, it seems to be inappropriate to determine the essential elements of elite Japanese athletes without empirical study that elicits in-depth information of Japanese athletes' own views.

Only one qualitative study attempted to explore athletes' own views related to excellence to date (Watabe & Hoshino, 1985). In this study, an interview format was utilized to draw out information on mental preparation, mental states, specific behaviour, and feelings or thoughts of athletes in competitions, regarding athlete's best and worst performances. Watabe and Hoshino referred to some of the key findings of the results such as determination

to win, feeling no pressure, positive thinking, mental imagery, and self-talk to be important. However, only a few quotes and comments with regard to each interview question were presented, and there were no detailed interpretations and descriptions of identified elements.

Thus, a study that provides more detailed information about mental factors contributing to athletic success is needed. It is also noticed that none of the studies referred to details of mental strategies employed by Japanese athletes, only to skills.

A Summary of Japanese Literature Review

A review of Japanese scientific studies revealed that earlier Japanese research on elite athlete conducted is limited in number and to the area of mental skills and mental strategies relevant to successful performance. The examination of mental skills and strategies indicated that there seem to be certain mental skills and strategies contributing to successful performance. However, what specific skills and strategies are relevant to athletic success have not yet scientifically been demonstrated. Moreover, no study has been conducted to examine the developmental aspects of athletic excellence such as a developmental process, nurturing, and practice, which were shown in the North American literature.

Summary of Literature Review

A review of both North American and Japanese literature indicates that there seem to be common mental factors associated with athletic success. Both also showed, however, that there is a lack of research dealing with developmental factors, nurturing factors, and practice, as well as with the integration of various factors centering around athletic excellence.

In North America, several theoretical or conceptual frameworks explaining the

phenomenon of athletic excellence have been proposed (e.g., Bloom, 1985; Loehr, 1983; Orlick, 1992). On the other hand, a review of the Japanese literature clearly indicates the paucity of scientific data and in-depth information centering around the area of mental excellence of Japanese athletes. In fact, only one major qualitative study on mental readiness of elite Japanese athletes has been reported to date (Watabe & Hoshino, 1985). Given that the Japanese have a different cultural background and have excelled in the field of industry and sports, research in this field with Japanese athletes may provide valuable information. It is hoped that exploration of elite Japanese athletes' views or insights into their mental aspects of sport will shed light on another perspective in the study of athletic excellence.

CHAPTER 3 METHODOLOGY

An Overview of Research Methodology

This study was qualitative in nature, utilizing a semi-structured interview format in data collection and inductive content analysis in data analysis and interpretation. It attempted to examine the phenomenon of athletic excellence from a holistic perspective. Nine superior Japanese athletes were selected for this study.

Participant Selection

Initially, 49 Japanese amateur athletes or former athletes, from seven different sports, were interviewed for this study. Thirty nine individuals responded from an athlete's point of view, while 10 former athletes who had become coaches responded from a coach's point of view. As athletes, the minimum level of success of each subject was participation in a national competition. The sample included both males and females. After conducting these interviews, it was recognized that the athletes varied greatly in terms of the levels of their success. Therefore, of the 49, the nine best athletes, responding from an athlete's point of view, were selected for the purpose of this study. Specifically, three criteria for the selection were set; 1) the athlete must have won at least one major international competition, such as the Olympics or the world championships, 2) the athlete must have won at least three times in the national championships, and 3) the athlete must have been actively involved in high level competitive sports sometime between the years of 1984-1994 (within the last decade). The first two criteria were set based on the Chambliss's operational definition of excellence, "consistent superiority of performance". The third criterion was to ensure that the subjects'

memory of their careers or performance was fresh enough, and to gain contemporary data or to reduce the chance of a generation gap in terms of "traditional Japanese mentalities" (Ochiai & Unno, 1985). Consequently, nine superior male athletes from three different sports met the criteria.

Instruments

For the purpose of data collection, a short questionnaire and a semi-structured interview guide were developed. The questionnaire mainly captured demographic data, such as age, gender, the age at which the athlete began the sport, number of years of competition experience, frequency of training per week, duration of training per day, and prior experience with a sport psychology consultant (see Appendix A).

A semi-structured interview guide, containing mainly open-ended questions, was created based upon an adaptation of Orlick and Partington's (1988) "Athlete Interview Guide" and Hemery's (1986) "Review of Questions". The guide consisted of six parts; the first part relating to career histories; the second part focusing on practice; the third part dealing with competitions; the fourth part comparing the best/worst performances; the fifth part dealing with the social relationships; and the final part with the closing questions (see Appendix B).

The use of the semi-structured interview guide allowed the researcher to gather basically the same information from a number of participants, yet to probe for details about specific subject areas, to remain open to those issues considered important by the participants, and to follow leads from the participant (Patton, 1980; Wiersma, 1985).

The instruments were first created in English, and then translated into Japanese by the researcher, based upon her clear understanding of the area of study as well as the Japanese

language as a native speaker. Another researcher, who was acquainted with both Japanese and English, conducted back-translation to validate the translation of the interview guide as well as the short questionnaire (Brislin, 1986). The researchers ensured that the translation was representative of the meaning of the original Japanese terms (Vallerand & Halliwell, 1983). Each questionnaire item was discussed until both researchers agreed upon the accuracy of the translation. Field testing with seven Japanese athletes, who came to compete in Canada, also confirmed that the translated instruments were valid.

Research Design

This section is twofold. It first presents an overview of theoretical background of the study, followed by a description of how the qualitative method was chosen for the study.

Theoretical Background of Research Design

A qualitative method was utilized in this study. Unlike quantitative research, the emphasis of qualitative research is not to test a hypothesis(es), but rather to describe the realities of the phenomenon under study and/or to build a theory grounded in experiences of the individuals studied (Guba & Lincoln, 1981; Strauss & Corbin, 1990).

The present study generally rested on a *constructivist* paradigm, among several theoretical paradigms of qualitative research (Denzin & Lincoln, 1994). Denzin and Lincoln in their overview of qualitative research stated that "the constructivist assumes a relativist ontology (there are multiple realities), a subjectivist epistemology (knower and subjects create understandings), and a naturalistic (in the natural world) set of methodological procedures. Findings are usually presented in terms of the criteria of grounded theory" (pp.13-14).

Grounded theory emphasizes development of theory. Strauss and Corbin (1994) stated the following standpoint of the grounded theory approach. The meaning of the richness of data (conceptual density), is connected with conceptualization, and is differentiated from the idea of thick descriptions (Geertz, 1973), where the emphasis is on description itself. Although the grounded theory approach is the most widely used qualitative interpretive framework, the overemphasis on theory has been criticized (Denzin, 1994). Critics pointed out its "textual style that frequently subordinates lived experience and its interpretations to the grounded theorist's reading of the situation" (Denzin, 1994: p.508). Accordingly in the present study, given that highest achievers are often "unstandardized" and unique entities (Guba & Lincoln, 1981), discovery of realities in which athletic success occurred was not totally linked with searching for conceptual patterns leading to theory development, but rather with thick descriptions stemming from content analysis. In order to fully understand and uncover the phenomenon of athletic success, laying out all the possibilities was considered to be more meaningful, rather than describing only major commonalities.

According to Strauss and Corbin (1990), qualitative research is conducted based on "the assumption that all of the concepts pertaining to a given phenomenon have not yet been identified, at least not in this population or place; or if so, then the relationship between the concepts are poorly understood or conceptually underdeveloped" (p.37). This study was begun with these assumptions, along with those stemming from the literature review on athletic excellence.

Rationale of Selecting Qualitative Method

One of the major strengths of qualitative research is its ability to provide information

in a holistic manner, capturing and unravelling complexity (Locke, 1989; Miles & Huberman, 1994). According to Janesick (1994), qualitative research "looks at the larger picture, the whole picture, and begins with a search for understanding of the whole" (p.212).

The underlying principle of the holistic approach is that it assumes "the whole is greater than the sum of its parts" (Patton, 1987: p.17). A review of the literature relevant to athletic excellence made clear that athletic excellence was a complex, multifaceted phenomenon. To examine such a phenomenon, a holistic approach within qualitative method was found to be most suitable, in that "detailed attention can be given to nuance, setting, interdependencies, complexities, idiosyncrasies, and context" (Patton, 1987: p.17).

Although previous studies related to athletic success provided valuable information, most are specific to a context such as competition, practice, or social support, rather than examining with a sense of wholeness. Patton (1987) noted an excellent example of a pitfall of combining findings of different researchers with different points of view to explain a phenomenon:

it is as though an artist were to gather the hands, feet, head, and other members for his images from diverse models, each part excellently drawn, but not related to a single body, and since they in no way match each other, the result would be monster rather than man. (p.18, cited from Kuhn, 1970, p.83)

Where the main purpose of the present study was to gain a deeper understanding of athletic success in a holistic view, one of the best ways to meet this objective was to directly interview those individuals who had achieved the highest levels of success in their respective sports and to elicit their expertise based on their experience (Guba & Lincoln, 1981).

For data collection, one-on-one interviewing, using a semi-structured interview format, was believed to be most appropriate. The strengths of a semi-structured interview

format not only enabled the researcher to elicit in-depth information of each athlete's own experiences, feelings, thoughts, insights, opinions, or expertise with respect to the study topic, but also allowed both the researcher and the participant to clarify questions and responses if necessary. The researcher could probe for details, and simultaneously observe non-verbal cues such as nuance, pauses, voice intonation and tones, and gestures (Patton, 1987). This facilitated the researcher's understanding of each person's experiences and insights more truthfully, which orthodox science or other qualitative data collection methods (open-ended questionnaires) would not do (Guba & Lincoln, 1981).

Qualitative data provide thick descriptions that are "vivid, nested in a real context, and have a ring of truth that has strong impact on the reader" (Miles & Huberman, 1994: p.10). These thick descriptions brought out a clearer picture of what real life of elite athletes was like, what it took to reach that level of success, and how each of the individuals saw his life as well as specific events, situation, or processes.

Detailed qualitative information directly derived from experiences of exceptional athletes has been found to be valuable in obtaining a better understanding of the nature of excellence (Dewar & Horn, 1992; Martens, 1987; Streat & Roberts, 1992). In fact, in previous studies, the most rich and valuable data related to the topic of excellence or expertise had been gained through qualitative methods (e.g., Bloom, 1985; Côté, 1993; Gould, Jackson, & Finch, 1993a, 1993b; Scanlan, Stein, & Ravizza, 1989, 1991; Orlick & Partington, 1988). Moreover, Chambliss (1989) concluded in his examination of athletic excellence that actions of elite performers are qualitatively different from those of performers at other levels. If so, it was found to be logical to examine such differences by means of qualitative methods.

For all above reasons, the qualitative method was chosen to be most appropriate for the purpose of this study.

Procedures

This section describes procedures taken in this study, and has been divided into four subsections, including: pilot study, initial contact and arrangement of interview, interview procedures, and interview techniques.

Pilot Study

Prior to the main interviews, several pilot interviews had been conducted with Japanese judo competitors during the Canada Cup competitions in October, 1992. The pilot interviews were conducted to test the effectiveness of instruments and to develop effective interview techniques and communication patterns (Jenesick, 1994). Minor adjustments to the developed interview guide were made accordingly. The pilot interviews also allowed the researcher to adjust herself to language and/or cultural differences.

Initial Contact and Arrangement of Interview

Selected individuals were initially contacted by mail and/or by phone and asked to participate in the research study (see Appendix C for a copy of the covering letter). They were informed of the nature and the purpose of the research as well as confidentiality of data. Participation was on a voluntary basis. With those individuals who agreed to participate, an interview was arranged and conducted at athletes' earliest convenience.

Interview Procedures

Prior to each interview, introductory comments were made by the researcher, and each

participant was asked for permission to tape record the interview. In no case was permission denied. Tape recording allowed the researcher to be an active listener, and to conduct a verified content analysis with the resulting transcripts. In addition to tape recording, the researcher also took notes if necessary. Note taking allowed the researcher to clarify the interviewee's point of view and to ensure that all necessary questions were covered by the end of the interview.

Each participant was first asked to fill out the short questionnaire regarding their background/demographic information. While participants were filling out the questionnaire, informal conversation occurred, helping to increase rapport. The questionnaire aided athletes to briefly overview their career. The interview was started with a question that was considered to be fairly easy to answer: "How did you get involved in your sport?". This was generally followed, in order, by a set of questions listed in the guide, regarding their career histories, practice, competition, influence of third parties, and ended with concluding questions. However, the sequence and wording of questions remained flexible and were up to the researcher's discretion, directed to best elicit the person's point of view.

To gain a broader sense of athletic success, several types of questions were combined, such as behavior/experience questions, feeling questions, sensory questions, opinion/value questions, and simulation questions (Patton, 1987). By asking these types of questions in an open-ended style, using both abstract and specific forms, athletes' insights believed to be the most truthful were elicited. All interviews were conducted in person, in the Japanese language, and lasted between one and two hours.

Interview Techniques

In order to assure the interview quality, there were several important aspects the researcher was aware of in the course of interviews, including:

- a) The researcher chose the best place and time of interview as possible. She also tried to create an atmosphere in which interviewees would feel at ease, and to interact with them in a natural, unobtrusive, and nonthreatening manner so that they could talk freely about their point of view (Biklen, 1992; Locke, 1989).
- b) The researcher tried to listen to the participants attentively and stay neutral to their views without passing judgement (Locke, 1989; Patton, 1987).
- c) The majority of questions were asked in an open-ended form. However, closed questions were also employed to confirm the accuracy of researcher's understanding of what athletes had said (Guba & Lincoln, 1981).
- d) The researcher made sure to ask one question at a time in a simple clear form, to avoid leading questions, and paid attention to appropriate wording and non-verbal cues (Patton, 1987).
- e) Whenever the researcher felt uncertain about the participant's point of view, further questions were asked to probe for detail and to gain specific examples (Patton, 1987).

Data Preparation and Analyses

This section explicitly describes how data preparation and analyses were conducted.

Data Preparation

The taped interviews were transcribed verbatim by the researcher herself as soon as each interview was completed (see Appendix D for interview sample). Since this task was promptly performed while the memory was still fresh, interviewees' gestures or non-verbal cues were also recorded, helping to further clarify the athletes' insights. This transcribing process provided an excellent opportunity for the researcher to fully comprehend and digest the interview content of each athlete and to retain the information in her memory.

As soon as the taped interviews were transcribed, the texts were sent to each athlete to verify their authenticity, and adjusted accordingly if necessary, prior to the analysis. Of the nine, eight athletes either returned the transcripts with some corrections (adding, rephrasing, clarifying, or changing information) if necessary, or informed the researcher that the transcribed document was a valid account of their views.

Once the verification was confirmed, minor editing procedures were performed on data; names and references were replaced by general terms in brackets { } to protect the anonymity of the athletes, and relevant information was added in brackets [] to clarify any ambiguous sentences. Three copies of transcripts were prepared for each interview for the purpose of data analyses; two for coding and classification, and the other for reference.

Data Analyses

Data analysis was mainly qualitative. Only data gained from the short questionnaire was presented through descriptive statistics (e.g., means, ranges, frequencies).

For the interview data, inductive content analysis was primarily used. It must be clearly stated first that one of the central purposes of this study was to fully describe elite athletes' realities, rather than only to report major commonalities found among the group of athletes. Hence, thorough analysis was conducted on each athlete's transcript, with an assumption that each athlete was a unique entity. Thus, any peculiarity was not regarded as negative or irregular, but rather as uniqueness.

In the presentation of interview findings, ample examples of "who did what" were almost exhaustively described under each topic area. The thick descriptions were aimed at reconciling individual differences with patterns relatively common among the group of elite

athletes. Based on the thorough descriptions, a conceptual model was then generated. With these objectives in mind, three main steps were taken in data analyses based on the references on qualitative analysis methods suggested by several researchers (Bogdan & Biklen, 1992; Côté, 1993; Gould et al., 1993a; Strauss & Corbin, 1990). Each of these steps is explicitly described below:

Step 1 : Creating personal files

Because of the small study sample ($n=9$), each transcript was studied carefully, and personal file for each athlete was created. In this phase, the central tasks were to identify topics discussed by an athlete, and to divide the topics into the most concrete data units. These data units made up personal files and became the basis of analysis. Patton (1987) stated that: "Organizing and simplifying the complexity of data into some meaningful and manageable themes or categories is the basic purpose of content analysis" (p.150).

a) Identifying topics and coding. Each interview transcript was initially read to identify and classify the topics the person talked about, often corresponding with addressed questions. Accordingly, the transcribed text was divided into segments by the topics. Each segment was coded with a concise phrase describing a topic (topic code), and codes were written in the margins of the text (e.g., initial sport experience, practice methods). As Bogdan and Biklen (1992) stated:

Codes categorize information at different levels. Major codes are more general and sweeping, incorporating a wide range of activities, attitudes, and behaviors. Subcodes break these major codes into smaller categories...If the code consists of matter that would break down further for convenient handling, develop subcodes to take your analysis further. (p.177)

Following Bogdan and Biklen's (1992) suggestion, subtopic codes were developed if a topic

code consisted of smaller concepts. Types of information the topic/subtopic codes contained were setting/context codes, process codes, behavior codes, event codes, strategy codes, relationship and social structure codes, perspective codes (Bogdan & Biklen, 1992), feeling codes, and situation codes. For example, under a topic code of "practice methods" (context code), subtopic code such as "normally" or "when tired" (situation code) were included.

Nevertheless, determining the degree of topic complexity (abstractness/ concreteness) was not much of the researcher's concern at this point. This initial topic coding process was found to be necessary in the research dealing with a wide variety of topics to organize massive information into manageable forms (Patton, 1987).

b) Breaking down topics into raw data units. Once the classification of topics/subtopics was completed for all nine interview transcripts, each text was read through for the second time. The researcher's focus at this time was to further break down each topic segment into concrete raw data units. Each raw data unit contained a specific context. For example, under a topic code "practice methods", with "normally" for a subtopic code, "imagining competition before performing" or "planning training schedule" were identified as raw data unit. A raw data unit could be represented by a paragraph, a sentence, or even a word. This raw data unit is equivalent to the term "meaning unit". Tesch (1990) defined a meaning unit as a "segment of text that is comprehensible by itself and contains one idea, episode or piece of information" (p.116). A raw data unit could be assigned to multiple topic codes (Bogdan & Biklen, 1992). For instance, a data unit "imagining competition before performing" could be assigned to topic codes "practice methods" and "mental strategy".

Once a raw data unit was identified to stand alone for particular topic(s), a segment

of transcribed text representing the unit was literally cut up by scissors and pasted on a notebook under marked particular topic/subtopic code(s), along with a page number and line(s) of the text, and a code or brief statement describing the essence of unit context. This manual creation of personal files was similar to the "cut-up-and-put-in-folders approach" suggested by Bogdan and Biklen (1992).

When this filing process was completed for a participant, his transcript was scanned to check if all the important features were covered. In the meantime, emergent topics, particularly those which were not directly addressed in interview questions, were searched. Then, a summary of career histories and general comments were also included as references in the file.

At this point, the topic codes were still provisional and could be modified as analysis proceeded (Strauss & Corbin, 1990). As well, the degree of complexity describing topics/subtopic remained incoherent and not firmly determined until the whole analysis was completed.

Step 2: Discovering/creating themes and categories

The central tasks involved in this phase were to list all the raw data centering on a particular topic from nine cases, to compare and contrast the data units, and to converge the data units of similar concept. Consequently, main themes emerged. Once a satisfactory system of themes was established on a particular topic, each theme was further examined to discover and differentiate smaller concepts, categories. Once the themes and categories were established, writing began. During the writing process, themes and categories were still subject to refinement. When writing displayed that the topic area was meaningfully organized

and integrated, the researcher moved on to the analysis of the next topic. This process was repeated until sources of topic areas had been exhausted.

In this stage, there was a constant interplay between inductive (proposing ideas) and deductive (checking text) thinking (Strauss & Corbin, 1990). The analysis procedures in this phase are elaborated on as follows.

a) Listing and comparing data to discover themes. All nine personal files were read through to refine and determine topic areas, keeping research questions in mind as a guideline. The researcher focused on one topic area at a time. Once a topic was thought to be distinct from others, all the raw data units centering on a particular topic were listed on paper. Raw data units were compared and contrasted, and then those data units with similar meanings were gathered together. Labels were given to identify the clusters of the data units, in other words, themes, within a topic area.

b) Creating categories. The next step in the analysis involved discovering and specifying differences as well as similarities of data within a theme. In the same manner as the creation of themes, this was conducted through the comparison of data units grouped within a theme. A label was given to describe a set of data units grouped in a cluster, which was termed a category. For example, two categories, "pushing to one's limit" and "expanding one's limit", were emerged from the data units, comprising a theme of "quality practice". Thus, categories were defined as subthemes of a broader theme. Differentiating more details, for instance "pushing" and "expanding", was an important feature of this process.

It must be noted that the degree of complexity in topics varied greatly, depending on the nature of topics. Thus, the levels of classification system differed among topics, and

themes and categories were not formally created for all the topics. For those topics with less complexity (e.g., initial sport experience), information was narratively presented under each subtopic (e.g., introduction to sport, initial perceptions of sport, success dream). Formal creation of themes or categories was found to be unnecessary as it was clearly comprehensible. On the other hand, for broader topics (e.g., mental approaches to practice), themes and categories were constructively created at a more abstract level. Accordingly, if patterns of similarities and differences were still observed within a category, subcategories or dimensions were further developed. Thus, the degree of classification system was defined in terms of the complexity of the topics and comprehension of, or accessibility to, the readers. Although the researcher adhered to systematic procedures in data analysis, it was not necessarily a mechanical process, but a creative process (Locke, 1989; Strauss & Corbin, 1990). Strauss and Corbin (1990) explained:

Creativity manifests itself in the ability of the researcher to aptly name categories; and also to let the mind wander and make the free associations that are necessary for generating stimulating questions, and for coming up with comparisons that led to discovery (p.27).

Themes and categories were named intuitively, either in Japanese or English. The researcher remained flexible and open minded to break through biases and assumptions (Strauss & Corbin, 1990). In order to do so, researcher's theoretical sensitivity was considered to be important because "categories do not just 'emerge' out of data as if they were objectively 'there' waiting to be discovered" (Jones, 1985: p.58). Also, Strauss and Corbin (1989) stated that in the process of data analysis, "it is theoretical sensitivity that allows one to develop a theory that is grounded, conceptually dense, and well integrated" (p.42). Thus, literature

relating to the study was consulted at times during the analysis.

c) Refining themes/categories and writing descriptions. When themes and categories were settled within a particular topic area, all transcripts were scanned to discover whether other raw data units relating to a particular topic of interest existed. If found, they were further assigned to one of the themes or a new theme was created.

Once sources of information on the topic had been exhausted and a satisfactory system was established for themes and categories, the writing process began. However, the theme and category names were yet to be firmly determined at this point, and analysis was still ongoing. Quotes to be presented, that were most descriptive of themes or categories, were chosen at this point. An act of putting themes and categories, along with quotes, on paper aided the researcher to further clarify and refine the issues centering on the topic. Consequently, whenever new ideas or concepts came up or incoherency among the themes or categories was observed during writing, the topic was reexamined until they made sense. When descriptions of one topic were completed, it was put aside, and the researcher moved on to the analysis of the next topic.

As already mentioned, the main purpose of the study was not to highlight commonalities among elite, but rather to present as many facets of athletic success as possible. Hence, data units which did not belong to any major themes or categories were kept in as unique cases.

It must be stressed that creation of categories and themes was not a simple task. The researcher refined the themes and categories repeatedly (creating new themes/categories, discarding themes/categories, patching up multiple themes/categories, regrouping

themes/categories, subdividing themes/categories, or changing theme/category names) until a satisfactory system was established (Tesch, 1990). The researcher moved back and forth between categories and themes. Also, both inductive and deductive techniques were alternatively employed to verify and validate themes and categories (Strauss & Corbin, 1990).

Those topics periodically set aside were re-examined and revised or refined where necessary. Since the researcher became saturated by topics in the earlier analysis phases, this examination of each topic with a fresh, objective mind was considered to be important.

Step 3: Conceptualization

Following the procedures of grounded theory (Strauss & Corbin, 1990), the next step was to identify the relationship between topics/themes along with their categories, and integrate them with a sense of entirety. This conceptualization would be the final result of the study. One of the main goals of the study was to develop a conceptual model describing a phenomenon of athletic excellence with a holistic view. Concrete realities of athletic success revealed in the earlier analysis stages would become the basis of conceptual model. The basic idea of conceptualization was to analyze and regroup the information at a more abstract level (Strauss & Corbin, 1990). The core concept was first chosen with the research questions in mind, the development of athletic excellence. The main elements explaining the core concept were determined, based on the earlier analyses. Then, those elements were integrated to explain the dynamics among elements with respect to the core concept.

Presentation of Results

This section clarifies several notions in terms of presentation of results. The chapter

of results and discussion consists of three main parts. The first part displays the demographic data mainly with descriptive statistics. "Thick descriptions" of interview findings centering on the phenomenon of athletic excellence are included in the second part. The last part illustrates conceptual model that is the essence of the study findings.

In the second part, not all the topic areas were presented in terms of themes or categories, depending on the complexity of the topics and accessibility to the readers, as mentioned earlier. In general, the findings were organized in terms of topics, subtopics, themes, categories, and in some cases subcategories, indicating from the abstract to the concrete in order.

Since all the interviews were conducted in the Japanese language, the quotations presented across the study were the ones translated by the researcher herself. The quotations were not translated literally, or word-for-word, but careful attention was paid to reflect the meaning of the context as accurately as possible. It was virtually an impossible task to have someone go through and cross-check all the translated materials and the original, simply due to time constraints and difficulty finding a person who was sufficiently familiar with both Japanese and English, the study area, and the procedures of qualitative study. Thus, this was a limitation of the study.

However, in order to increase the quality of the study, all the study findings were reviewed by two independent English speaking individuals who were both familiar with qualitative research and the study area. The reviewers were asked to simultaneously check whether any inconsistency existed between themes/categories and supporting quotes in the entire description of interview findings. This reviewing process was found to be effective for

controlling the quality of research.

Only one complete interview transcript was translated into English. Thus, all page numbers indicating the source of quotes correspond to those of the original Japanese transcripts.

A conceptual model is presented in the last part. A conceptual model is a graphic representation of a persons' conceptions, beliefs, or theories about the relationship between elements relevant to the research question (Jones, 1985). In presenting a model, a particular graphic form of the model was chosen, believed to best capture the core findings with respect to the research questions from a variety of possible choices (Miles & Huberman, 1994).

Assessing "Goodness" of Study

There were several methodological considerations that were taken into account in the whole process of this study. At the end of the research, "goodness" of research was assessed, mainly based on Miles and Huberman's (1994) guidelines. Assessment focused on the following six notions: credibility, objectivity, reliability, generalizability, practicability, and ethical concerns.

Credibility

Credibility is defined in terms of accuracy or truth value of collected data and study findings (Guba & Lincoln, 1981; Miles & Huberman, 1994). Several methods that assured credibility of the study are listed below. Since credibility of the study could be assessed and assured in terms of data collection, data interpretation, and overall aspects of study, those strategies were presented corresponding with these aspects.

Data collection

- a) Participation in the study was on a voluntary basis, reducing the chance of irresponsible responses due to enforced interviewing (Gould et al, 1993b).
- b) All interviews were conducted on a one-on-one basis to eliminate additional observer effect (LeCompte & Goets, 1982).
- c) Efforts were made to establish rapport and trust between the researcher and study participants, in order to facilitate a free expression of their opinions and insights (Patton, 1987).
- d) Both researcher and participants had an opportunity to clarify the questions and responses. The participants were asked to give specific examples when the researcher felt uncertain about what was said (Patton, 1987).
- e) All the interviews were tape recorded and transcribed verbatim (LeCompte & Goets, 1982).
- f) Transcribed interviews were returned to participants to verify the accuracy of the information (Orlick & Partington, 1988).

Study findings

- a) Findings were thoroughly described in terms of specific contexts and situations so that reviewers would be able to judge its accuracy (Miles & Huberman, 1994).
- b) Findings were grounded in athletes' experiences and insights studied, supported by their own quotes, and the information was context-rich and thick (Strauss & Corbin, 1990).

Overall

- a) Assessing "goodness" of study itself could enhance the quality of study.

Objectivity

Objectivity is defined in terms of neutrality or the degree of researcher's bias (Locke, 1989; Miles & Huberman, 1994). Although it was impossible to eliminate all the researcher's bias in qualitative research where the researcher is the primary instrument of investigation in

data collection and analysis (Guba & Lincoln, 1981), it could be minimized in several ways. These ways are listed as follows in terms of three aspects: data collection, data analysis, and overall aspects.

Data collection

- a) An interview guide was utilized to collect basically the same types of data from different participants (Patton, 1987).
- b) Any form of leading questions was avoided (Patton, 1987).

Data analysis

- a) Systematic data analysis procedures, in the way described earlier, were adhered to (Strauss & Corbin, 1990).
- b) An attitude of skepticism was maintained (Strauss & Corbin, 1990).
- c) All the data units relevant to the goal of the study were taken into account in analysis, and all participants were counted in descriptions of each topic area.
- d) The researcher periodically stepped back from the analyzed data and re-examined the data at a later date (Strauss & Corbin, 1990).

Overall

- a) Theoretical sensitivity was increased through consulting the existing scientific knowledge (Strauss & Corbin, 1990).
- b) Being aware that biases exist (Miles & Huberman, 1994).
- c) Methods and procedures of data collection as well as analysis were explicitly described so that other researchers may judge the threats to the objectivity (Miles & Huberman, 1994).

Reliability

The underlying issue of reliability is "whether the process of the study is consistent, reasonably stable over time and across researcher and methods" (Miles & Huberman, 1994).

Strategies employed to increase reliability are listed below:

Data collection

a) The instrument (interview guide) was developed based on the interview guide created and successfully utilized by other researchers to elicit elite athletes' insights (Orlick & Partington, 1988).

b) The researcher familiarized herself with effective interview techniques and procedures through reading relevant literature as well as conducting pilot interviews (Janesick, 1994).

c) The criteria for selection of study participants were carefully chosen based on the existing knowledge in the domain (Strauss & Corbin, 1990).

Data analysis

a) Although no other researcher was directly involved in the process of data analysis, all the study findings were reviewed by two independent individuals who were both familiar with the study area and qualitative research methods. They were asked to check whether consistency/ inconsistency existed between each of the identified themes/categories and supporting quotes. All quotes were translated from Japanese into English to reflect the meaning of context as accurately as possible. Given that thorough descriptions of athletes' experiences and insights were presented in each topic area, the reviewers reported that they were congruent.

Overall

a) Research questions were clearly outlined, and the appropriate research method was selected with respect to the goal of the study, while considering theoretical sensitivity (Miles & Huberman, 1994).

b) Study data were retained and are available for reanalysis by other individuals.

Generalizability

Generalizability is defined in terms of "whether the findings of a study hold up beyond the specific research subjects and the setting involved" (Bogdan & Biklen, 1992). LeCompte and Goetz (1982) argued that in qualitative research even the most exact replication of research methods may fail to produce the identical results due to the changes in

contexts or circumstances within which the research are undertaken. Also, because the goal of qualitative research is typically to examine uniqueness or complexity within a specific group of individuals studied, generalizability of findings to other subjects or contexts is often not the qualitative researcher's central concern (Bogdan & Biklen, 1992). Nevertheless, issue of generalizability could be assessed in this study as follows:

- a) The characteristics of the study sample, study settings, and methods and procedures of data collection as well as analysis were explicitly described. This provides other researchers with the means for judging the transferability if they wish to apply the same study method to their own study context.
- b) Results, containing thick descriptions, should allow other researchers to assess the potential transferability.

Practicability

The issue underlying practicability is a question of the extent to which the study findings can be usable and applied to individuals in the field (e.g., athletes, coaches, sport psychologists), and/or stimulate researchers in the domain to future action. Miles and Huberman (1994) argued that the question of practicability or "pragmatic validity" is an essential addition to more traditional views of "goodness" of research.

- a) This study (interview) helped participants with respect to recall clarity of performance factors, learning, well-being, and/or potential development of their skills. Athletes commented after the interviews that the interview helped them become more aware of the importance of mental aspects or to re-evaluate the mental aspects of their sports. This was immediately practicable (Lincoln, 1990).
- b) Since the findings contain practical expertise and wisdom of high achievers based on their own experiences, this may be helpful for other developing athletes.
- c) The findings may possibly stimulate "working hypotheses" to guide future research avenues or action (Miles & Huberman, 1994).

Ethical Concerns

Ethical concerns refer to "judgements made about the worth, legitimacy, or goodness of actions or meanings" (Miles & Huberman, 1994: p.280).

- a) Confidentiality of data and anonymity were assured.
- b) Special attention was paid not to make the study participants feel "used", by sending transcripts, promising that a summary of the findings would be sent if desired when the study was completed, sharing available information once interviews were completed, and showing up at competitions.
- c) The interview process and subsequent interaction with participants was respectful and demonstrated a belief in the worth and value of their knowledge.

CHAPTER 4

RESULTS AND DISCUSSION

This chapter consists of three main parts: 1) participant demographics; 2) interview findings (description of mental factors associated with athletic success); and 3) comprehensive interpretation (conceptualization of mental factors associated with athletic success). The first part quantitatively outlines general characteristics of the subjects. The second part describes athletes' experiences, feelings, and insights, identifying common themes and categories related to their success. Those themes and categories are supported by athletes' quotes that have been sorted, organized, and categorized. The final part presents a conceptualized model of mental factors contributing to sports success based upon a synthesis of previous interview findings.

Participant Demographics

Nine athletes were selected for this study, each having won at least once in major international competitions as well as at least three national championships. All of the participants in the study were male and aged between 24 and 36 years old at the time of interviews. Athletes in this study were drawn from three different sports: judo, wrestling, and gymnastics. Although the majority of the subjects ($n=8$) were from combative sports, the selection was not made according to the type of sport but rather the level of success achieved. Comparative analysis between sports was not conducted in this study due to small and unequal numbers of subjects.

Table 2
General Demographics of Study Sample

Number of Subjects	9
Sex	Male : 9 Female : 0
Age at the Time of Interview	Range : 24 - 36 Mean : 30. 7 S. D. : 4. 5
Sport	Judo : 6 Wrestling : 2 Gymnastics : 1

With regard to current career status, study participants included retired athletes and active athletes. At the time of the interviews, two thirds of the group (n=6) had already retired and were coaching, whereas the rest of the group (n=3) were still competing. Range

Table 3
Participants Demographics Related to Current Career Status

	Current Career Status	
	Retired & Coaching (n=6)	Active athlete (n=3)
Age at the time of interview	Range : 31 - 36 Mean : 33. 7	24 - 25 24. 7
Age at retirement	Range : 27 - 31 Mean : 28. 7	--- ---
Number of years since retirement	Range : 0. 5 - 8 Mean : 5. 1	--- ---

in age of the active athletes was from 24 to 25 years, and for the retired athletes from 31 to 36 years. Athletes ranged in age from 27 to 31 years at commencement of retirement. Number of years since retiring varied between 0.5 to 8.0; the mean being 5.1 years (Table 3).

The length of competition experience was diverse. As a whole, it ranged from 9 to 18 years; the mean being 15.1 years. Range in years of competition experience to date among the active athletes was between 9 to 18, with standard deviation being 3.7 and means being 14.0. Competition experience among the retired athletes was less varied, being between 12 and 17 years with 1.7 years of standard deviation and a mean of 15.7 years (Table 4).

Table 4
Number of Years of Competition Experience

Current Status	Range	Mean	S. D. (in years)
Active Athlete (n=3)	9 - 18	14. 0	3. 7
Retired Athlete (n=6)	12 - 17	15. 7	1. 7
Total (N=9)	9 - 18	15. 1	2. 7

As shown in the selection criteria, one of the main characteristics of the study participants was that they were the highest achievers in their respective sports. To briefly illustrate their achievements, the number of their victories in the national championships, world championships, and the Olympic games is presented in Table 5. All subjects were Olympic champions and/or world champions at least once, and national champions at least three times. The number of victories at the Olympics ranged from zero to two, victories at the worlds ranged from zero to four, victories at the nationals from three to nine.

Table 5
Number of Wins at the National Championships,
the World Championships and the Olympics to Date

Case	Number of Wins at		
	Nationals	Worlds	Olympics
1	9	4	1
2	5	1	1
3	4	1	2
4	6	2	1
5	5	4	0
6	3	2	0
7	3	1	1
8	6	0	1
9	7	2	1

With regard to practice participation, all nine athletes trained mainly at their universities, even after graduation and representing another team. Hence, it became clear that the university-based training system dominates at least in some competitive sports in Japan.

Frequency of training per week and duration of training per day were examined, both during the season and in the off-season. Frequency of training per week during the season ranged from five to seven days; six days by seven athletes, between five and six days by one athlete, and seven days by one athlete. Frequency of training in the off-season ranged from three to seven days; six days by six athletes, between three and four days by one athlete, between five and six days by one athlete, and seven days by one athlete. All but one athlete reported no difference in the frequency of training between seasons.

Average duration of training per day during the season ranged from 3 to 6 hours; 3 hours by three athletes, 3 hours and 10 minutes by one athlete, 4 hours by two athletes,

between 4 and 4.5 hours by one athlete, between 4 and 6 hours by one athlete, and 5 hours by one athlete. In the off-season, duration ranged from 2 to 6 hours. Eight athletes reported the same amount of training as during the season, with one athlete decreasing three hours in the off-season. Duration of training refers to average hours of regular training, including supplemental training such as weight training and running, but not including extra training that individuals imposed themselves outside of regular training, due to its irregularity. The majority of the athletes pointed out that there was virtually no off-season, a statement supported by the frequency and duration of their training throughout the seasons.

Interview Findings

The second part of this chapter deals with the presentation of interview findings. This section describes experiences, feelings, opinions, and insights of exceptional Japanese athletes with regard to mental factors associated with success in sports. It consists of six main topics that have arisen from the content analyses. In order to get a broader view of athletic excellence, the main analysis began with an examination of athletes' growth in the process of reaching a high level of excellence, from a developmental point of view. Secondly, athletes' views on their sports and lives were explored. The third topic, becoming more specific, centered on mental approaches to daily practice, while the fourth topic examined athletes' mental approaches to competition. In the fifth topic, psychological enhancement strategies utilized by the athletes were presented. Lastly, in the sixth topic mental factors that were determined to be essential to athletic success, were presented.

Growing to Be An Exceptional Athlete

In examining athletes' growth on their way to becoming exceptional, three specific subtopics, including initial sport experiences, realization of potential for success, and difficult experiences, were chosen to be examined. Two additional subtopics, learning from experience and nurturing factors, came forth from the data as having relevance to the main study topic. Therefore, a topic of growing to be an exceptional athlete consists of five main subtopics as follows.

Initial Sport Experience

To understand athletic success from a developmental point of view, the primary focus must naturally fall upon the issues related to initial sports experiences of successful athletes. More specifically, the researcher examined when and how the athletes got involved in their sports, what their early experience of sport was like, and whether or not they dreamt of being successful at this stage.

Introduction to one's sport. As a matter of course, athletes became involved in their sports at different ages and for different reasons. The ages at which they started training varied between 7 and 16 years; the mean being 12.2 (see Table 6).

Table 6
Age Range, Mean Age, and Standard Deviation of the Commencement of Sports

Sports		Range	Mean	S. D. (in years)
Judo	(n=6)	7 - 15	10. 3	3. 7
Wrestling	(n=2)	15 - 16	15. 5	0. 5
Gymnastics	(n=1)	13	13. 0	0. 0
Total	(N=9)	7 - 16	12. 2	2. 7

Two thirds of the group (n=6) said they began sports of their own choice, and the other three said they were initially motivated by others such as parents, a teacher, or a community member. Further discussion revealed that two of the youngsters were influenced by television programs on sports, such as the Olympic games or dramatic sports serials, then became interested in a particular sport. Two switched from one sport to another either because of a better chance of winning or being advised to do so. Two chose to begin their sports careers initially as a means to get into a school rather than with particular interest in a sport, either because of one's own volition or being recruited. Two had social reasons such as a desire to be tough enough to beat other boys or a desire to play with friends at a club. In one case only, parents sent their child to a club for discipline training.

Having briefly described how athletes got involved in their sports, the following pages examine the athletes' feelings and perceptions towards their initial experiences in their sports.

Initial perceptions of sport. Athletes in this study reported several different feelings about their early experiences in their respective sports. For the most part, however, athletes (n=6) found their experiences to be fun, enjoyable, playful, or exciting:

I just loved it. I was dying for {sport}. Literally I was thinking of {sport} all day long from morning through night. (5:1)¹

I found real pleasure just from moving my body and learning and mastering new skills. (22:1)

It was fun. I guess it's simply because I could throw other kids and win matches from

¹5 means a code assigned to an athlete.

1 means a page number of the original interview transcript.

the beginning. It might not be as much fun if I were losing. (13:1a)

Of the athletes who perceived their experiences to be fun, three recalled that participating in organized sports was nothing more than an extension of recreational activities. For example, one athlete said that his sport "substituted for other activities or games like wrestling or ball games" (4:1). As well, one athlete viewed his club as a place to play with his friends.

One athlete remembered being excited about his new experience in sport, but differentiated it from playing:

For the first time I found something I could really be enthusiastic about other than fun and games. It was different from playing, though. I mean I didn't care if I lost at fun and games. Like a race, I wasn't so mad at myself even when I came in last. But if it's something you're really into, then that's a whole other story. The more enthusiastic you are, the more frustrated you feel when you lose. (6:1)

Two athletes began their careers with a serious commitment. Upon joining high school teams with traditions of success, one was willing to change the direction of his life, and the other was committed to becoming a high school champion. The two expressed their commitment as follows:

I committed myself to {sport} at the point when I started high school. For sure, I was willing to change the whole direction of my life then. (32:1)

When I got into high school I set a goal to be a high school champion. I definitely believed I could. So I was willing to do the training necessary to become a champion. (24:1)

Although the majority of the athletes felt that their very early sport experiences were pleasant and fun, those athletes who joined a high school team to begin their sport careers (n=3) found it physically and/or mentally overwhelming. The athletes mentioned three factors contributing to their unpleasant experiences: changing living environment, strict senior-junior

relationships, and highly intensive training:

In my first year, I regretted my decision. I thought "How could everything be so hard! It'd be better sticking with {another sport}."...It was hard mentally. [Because] I had to be away from my parents...I had to take care of not only myself but also senior students. We had to do any chores like preparing meals and doing the laundry which I never did before. And of course, practice was very hard, too. (32:2-3)

I didn't get a good impression from the team when I first got there. ..They had strict senior-junior relationships. (10:1)

With respect to the athletes' initial perceptions of their sports, the following pages discuss whether those athletes who attained the highest level of success in their respective sports had dreamt of their future success at the initial stages of their sport careers.

Success dreams. When athletes were asked whether they had dreamt of being great athletes at the very early stages of their careers, two thirds (n=6) of the group responded, "not at all":

I didn't even have any idea what {sport} was like. The only thing I knew was that I could win if I could throw guys. (13:1)

I hadn't even heard of the Olympics. (8:1)

I just wanted to throw other boys really far like I'd seen in a TV drama. (6:1)

I didn't know I'd do so well or last this long. (10:1)

The quotes above also indicated that successful athletes were not necessarily outcome-oriented from the beginning but were instead more present-oriented. To elaborate, although young athletes obviously considered winning to be fun, the source of fun seemed to be simple task applications such as throwing other boys around, rather than competition-specific ambitions common in adult minds.

Although most athletes did not initially dream of being great athletes, some did (n=3).

Two expressed that their dreams were of winning at or participating in the Olympics:

Just after I started {sport}, I watched the {Olympics} on TV and thought: "Someday I want to win at the Olympics." (5:1)

When I was in junior-high I wrote in my diary: "I want to go to the Olympics." (32:1)

One athlete made a conscious decision to become a high school champion when he began his career at high school. As he expressed it:

At the point when I got into a high school...I definitely believed I could [be a high school champion]....But I wasn't thinking of the Olympics at that time, although I perhaps had that wish somewhere deep inside me. (24:1)

In sum, an examination of the issues related to initial sports experiences revealed that reasons for sports involvement and the ages at which athletes became involved were diverse. On the whole, those athletes who started before the high school age found enjoyment or excitement in their new sport experience, while those who started in high school perceived it to be unenjoyable at first, due to enforced discipline and abrupt intensive training. It also became clear that not all great athletes dreamt of being successful in their sport from the start, although they did begin to dream at a later point in their careers. Athletes who began with a serious commitment or determination to sport and a clearer goal were more likely the ones who started at an older age. The next section looks into how the athletes began to see themselves as being capable of success.

Realization of Potential for Success

The second topic area in examining athletes' growth toward reaching excellence dealt with realization of potential for success. This section describes how successful athletes came to realize their potential to excel, and the impact that realization had on their sports and lives.

Although athletes were not asked to define terms such as success or excellence, they seemed to set their standard of excellence as either winning or participating in major international competitions. More details can be referred to in the following.

Sources of realization of potential for success. The first step in examining topics related to athletes' realization of potential for success involved identifying the sources of belief in their potential. Four sources of belief were identified.

Early success- Six athletes reported that this realization came to them with their success at the junior Nationals:

When I won the national matches uncontested in my second and third years at junior-high, I thought: "I'm capable of winning the nationals at the high school level as well as at junior-high for sure. But also I'll be able to go even further." (4:1)

A seventh athlete, however, pointed out that his realization was still at the "maybe I'm going to be good" level (22:1) at the time he won the national high school championship in both individual and team events. In his own words, "the time I began to target the Olympics" (22:1) came only after being second at an international competition against athletes from a country known to be traditionally successful.

Practice with champions- Two of the above athletes said that experiencing the highest level through practicing with world class athletes, including world champions, may have been the real source of realization. It enhanced their sense of competence, thereby enhancing their motivation, confidence, and belief:

When I was a high school kid...I had an opportunity to practice with a world champion. For me, he was the man in the clouds at that time. ..During practice he got me, of course. But I had some kind of good feeling, thinking: "I can make it". He was a three-time defending world champion at that time. So I wrestled with a real live world champion... Regardless of that, what I thought was: "Is that it? Is that the world's top class!" (32:2a)

Coach's support- Two athletes referred to the contribution of their coaches to in realizing their potential, which included targeting goals and/or encouragement that they were capable of achieving those goals:

When I won at the high school championship in my third year, my coach told me that I would make it sometime in the future. Then I thought: "Maybe it's true." (5:1)

Winning big- Sometimes the true realization of potential came only after achieving the highest level in the world. One athlete recognized his true potential only after winning at the world championship. Perhaps it was because the victory was achieved only in the fifth year of his career, when he was the youngest world champion ever in his sport.

The time I realized that I could make it was after I took part in the world championship for the first time and won it. Actually I was a replacement for another guy and won. But at that point, I was rather thinking: "Well, here comes the victory. What can I do?" In that sense, victory came before realizing I was capable of winning. (10:1)

Although most of the group reported specific moments of realization that they could excel or reach their dream, two athletes felt that the real knowing came only after winning at a major international meet, regardless of previous smaller successes. One of them explained that success would not come accidentally, and that commitment was the decisive factor as to whether he could achieve his goal or not:

No realization came to me in a flash because you can't achieve that level of success unless you really decide to do so...There's no magical moment. I set my goal and just went for it like hell, to be an Olympic champion, no matter what it took. So basically I soaked up anything that would help achieve my goal. (24:2)

The other athlete pointed out the irrelevance of a particular realizing moment. He reasoned that success at the world level was a result of gradual and long-term competence and confidence building through accumulating victories or success experiences:

It's nothing like a realization, but rather a step-by-step type of thing. I mean, everybody goes to small competitions at first. Then they move ahead to the bigger and bigger ones. So I never thought: "I'll make it at the Olympics because I won at this level of competition." Instead, I said to myself: "I'm going to win this particular upcoming competition, at any cost. I'll make sure to get through this championship." If you successfully get through that one, then another one will be waiting for you. Then, again, I'd make sure to win upcoming matches, next ones, and so on. That's how I got to the Olympics and won it without a very particular moment of realization that I could excel. (8:1)

Seemingly bearing out his observation, most athletes, despite reporting particular moments of realization, also traced their memories back to several points in the earlier or later stages of their careers. By doing so, some athletes (n=5) implied that their realization of potential for success originated not only from one particular moment but also from success experiences accumulated over time.

Having examined the basic background of realization, including its sources and the timing of its occurrence, the following section presents how the athletes' realization affected their attitudes and behaviors in sport and life.

Impact of realization on sport and life. When realization of potential occurred, it had a considerable impact on sport and life. Among those who reported particular moments of realization, four recalled that sports thereafter became the center of their lives. In other words, all other aspects of their lives were altered to best benefit their sports:

My life began to work completely for {sport}. For example, I never did things that were no good for {sport}. Or I took it the other way around and I did things that benefited {sport} even if people said I better not. I started to think of every aspect of life to best make it work for {sport}. (13:2)

Sport became the center of my life. Meals, for example; I started to think about balanced nutrition. I wrote down what I ate. I said to myself "This will benefit {sport}" while picking up food. (22:1)

I became conscious of what I had to do in order to win. My whole life became the

way of winning. (6:2)

Realization of potential often led athletes to clearly set an ultimate goal in their minds, and also to find meaning in intensive training. Further, the goal enhanced their physical as well as mental involvement in sport:

Once you know you can go for it, then it's the time you set a new huge goal. Having such a goal really makes a difference in practice, as opposed to doing it as giving up your dream. My life became lively and fulfilling...If the Olympics or the world championships were dangling within my reach, then I could work much harder. Practicing became really worthwhile. (5:1-2)

Until then I was just practicing for an upcoming competition. I never thought of training for the Olympics or the world championships. But after that point, I started to think to some extent: "These hard practices are to achieve the goal." (32:3)

Although most athletes reported the positive effects of realization of personal potential on sport and life, one athlete experienced a negative impact, in the form of extra demands. However, it must be considered that the negative impact came along with increased public attention after an unexpected win at the worlds:

It called public attention to me...and it put an extra load on my shoulders. (10:2)

Further, one athlete only, the one who reported recognition of his capability to be a consequence of accumulated success, logically stated that there was no abrupt change in his life:

Basically my attitude has always been the same: "I do what I have to when I have to." I shift my attitude from when to practice to when to relax. So my life didn't change because of the Olympics. (8:2)

In sum, this section discussed sources of realization of potential for success and its impact on sport and life. Those athletes who reported a particular moment of realization, in most cases, experienced this moment upon a successful performance at the Junior Nationals.

As well, experiencing the actual international level by practicing with the world's best athletes was an excellent opportunity to test their abilities and reinforce belief. When an athlete felt competent in his performance, it enhanced his motivation for future successes. Coaches' support was also an effective motivator and may have contributed to the athletes' realization of true potential. On the other hand, a few athletes, believed that there was no clear occurrence of realization until a high level of success, such as winning at the Olympics, was actually achieved. The perspective of one athlete was notable that his awareness of his ability to succeed came about as a result of his accumulated success experiences. The variation in the time at which athletes realized or came to believe that they could excel seemed to be explained by individual personality and career history. On the whole, however, whether or not athletes experienced a particular moment of realization, winning or participating in major international competitions seemed to enhance their confidence in their ability to achieve success at the international level. Furthermore, recognition of potential future success often led athletes to become more committed to their sports. Realizing their potential for success also helped them to tolerate and understand the meaning of intensive training, and to set clear goals. Although realization or achievement of potential affected most athletes positively, it could also have negative impacts such as additional demands.

Whereas the athletes' realization of their potential for success reinforced their higher aspirations, there were also obstacles to be overcome in the long-term pursuit of their dreams.

Difficult Experiences

The third topic area identified in examining athletes' growth toward excellence involved difficult experiences. This section consists of two main themes: the types of

obstacles encountered, and the strategies used in overcoming them. A summary of types of obstacles and overcoming strategies can be referred to in Table 7.

Types of obstacles. All the athletes in this study reported that they encountered difficulties of one kind or another in their pursuit of excellence. Most individuals listed more than one obstacle. All but one, who was currently struggling, successfully overcame these obstacles and went on to pursue success at higher levels. Reported obstacles were grouped into five categories, including: 1) defeat, 2) injuries, 3) daily practices, 4) life changes, and for an exceptional reason 5) the Olympic boycott.

The foremost difficulty the athletes experienced was in dealing with defeat (n=6). Specific problems included consecutive losses and failure to make the Olympic team. Five athletes felt that losing at major international and/or national competitions in consecutive years was their greatest challenge. In some cases, injury was the major cause of the defeat. Nevertheless, losing in consecutive years had a strong psychological impact on athletes:

At the world championship that came a year after the {Olympics} I lost and was third....And at another world championship in {City} I was again beaten in the final....Then I thought: "Oh my God! Am I finished?" If I had lost only once, it would not be so bad. But imagine losing two consecutive years in the worlds, you've got to think: "Is this the dead-end?" (32:4-5)

I wasn't doing very well around {2 year period}. There was the Olympics in {year}. Around that time I had so many injuries. Although I won at home and made the Olympic team, I lost so poorly up there. I couldn't win at the internationals after a while. I even failed to make the team for the worlds in {year}. It was pretty hard to take because I was always on the right track till then. (13:2)

Another type of difficult experience regarding defeat, reported by one athlete, was his failure to make the Olympic team. The Olympic games were his life-long dream, and he wondered whether he could maintain another four years of intensive training without any

assurance of success (although in fact he won at the next Olympics):

The most difficult time in my career was when I lost at the final Olympic trials. The {Olympics} was always my goal...So when I missed it was real hard and I wondered what to do about my career. Because the next Olympics only comes four years later. I was already having a hard time losing weight, about six kilos. If I kept doing such hard training everyday, I'd gain weight because I'd put on some more muscle. But I had to control weight if I wanted to make it. So I wondered: "What will I do if I fail again despite another four years of such effort?" (24:3)

Table 7
Types of Obstacles and Sources of Coping

Types of Obstacles	Sources of Coping
DEFEAT [6] - Consecutive defeat [5] - Failing to make the Olympic team [1]	- Specific goals [2] - Evaluating mental preparation [2] - Determination [2] - Pride [2] - Belief [1] - Support from others [1] - Having a good performance [1]
INJURY [4]	- Time for recovery [2] - Determination [1] - Belief [1] - Having a good performance [2] - Support from others [2] - Reading motivational material [1]
DAILY PRACTICES [3]	- Changing perspectives [1] - Desire to get better [1] - Pride [1] - Reading motivational material [1] - Support from others [1]
LIFE CHANGES [5] - Leaving home at young age [3] - Graduating from university [2]	- Time for self-adjustment [4]
BOYCOTT [3]	- Resetting goals & recommitment [2]

Note. Numbers in brackets indicate number of athletes who mentioned the category.

The second type of obstacle identified was that of injuries, reported by four athletes. Virtually no elite athletes could avoid injuries during their careers, particularly in such sports as judo, wrestling, and gymnastics. One athlete commented on a relationship between physical fitness and mental fitness as follows:

When you're not physically well, your mental state gets down. Body is fundamental in sport for sure. When you've got something wrong with your insides or you're hurting yourself physically, your mental state gets weaker and weaker even if you're real good. (32:6)

When psychological damage was severe enough, it could have jeopardized an athlete's career. For instance, one athlete, who suffered from two major injuries in a year, almost decided to leave his sport the second time:

When my Achilles'tendon was cut....I cried, thinking: "Do I really want to keep going? I just want to quit."....I had no more inner strength to get back to work like I did last time. [When I was in the hospital] I said to myself: "I know I haven't gone either to the Olympics or the Worlds. But I won't go on in {sport} any more. I'll quit. At least I'm going to continue until I finish school. But after that I'll take over the family business and go easy." I was more than 90% sure about it. (22:2-3)

Thirdly, although most athletes recalled specific events from their difficult experiences, three athletes recalled that every single day of training was hard to bear, particularly at the commencement of formal training:

Things were hard every day. Even though I sort of knew "I can make it," it was still really tough to do all the practices. For the first three years after I started in a junior-high I never thought it was hard. I just loved to go to practice. But when I got into high school and did serious stuff, things became nothing but tough....I just wanted to quit. (5:2)

Another athlete gave two reasons for the perceived difficulty of practice at a younger age: physiological immaturity and a passive attitude towards practice:

I remember practice at junior-high was really hard. I guess it's partly because my body hadn't grown strong enough to bear such intensive training yet....But there is

more. I think it's because I was sort of forced to practice by a coach, and not by myself. (13:2)

The fourth obstacle athletes faced was that of life changes. Although changing living environments lies outside of the direct sports context, it certainly provided a psychological impact on athletes. Five athletes reported two types of transition in life. One was leaving parents at a young age, and the other was leaving school. More specifically, in the former case, three athletes decided to go to certain schools in order to get better coaching to achieve the higher level in their sports. Accordingly, they had to leave home and live with their teammates. Such a change in living environment at a young age could be very stressful:

It's all about my high school days. It was mentally very hard to be away from my parents and to live in a dormitory. I had to look after not only myself but also senior students. We had to do all kinds of things like the meals, the dishes, the laundry, which I had never done before. (32:3)

(It is often the case in Japan that junior students must do chores for senior students when they are on a school-based sport team.)

Two athletes had a difficult time when they graduated from university and added a new dimension to their lives. After being in school for a long time, being out of school was sometimes difficult to get used to since different physical and psychological demands were made of them. They often had to assume greater responsibilities in life in general, and adjust to a new way of life. Changes in such things as living environment, training schedules, relationships, the balance between sport and other aspects of life, could all be causes of difficulties. One athlete admitted to a decline in his level of performance at that time:

When I was in a transition in my life, graduating from school and having a job, I had to learn so many things that I didn't know when I was a student. Like personal relationships; I started to see a lot of life. I was so anxious that it negatively affected my performance at competitions. I think the level of my performance declined at that time. (10:10)

In addition, one athlete experienced the most difficult time of his career at the time he graduated from university, although life changes were not mentioned as a cause.

The fifth factor, the Olympic boycott, was obviously an exceptional case. However, three athletes in this study were unfortunate enough to experience this hardship. The Olympic games were the ultimate goal. For example, some athletes described it as: "It's like the top of Mount Everest. The final destination of my career," (32:5) or "It's not just a once in four years thing. It's once in your lifetime. It doesn't automatically come and visit you if only you sit back and wait for it" (4:7a). They had been training for years to make that dream come true. Hence, when the boycott was announced, it literally shattered their dreams (although all three made the next Olympics and won). It was particularly so for two of them, due to being at the peak of their ability at that time, as one put it: "My ability was at the peak like the moon being waxed...At the next Olympics, my ability was already on the wane," (32:4) and both subsequently suffered from injuries. The following examples displaying the difficulty at the Olympic boycott:

There are many amateur competitions these days, but the Olympics is the only competition that is held once in four years. Although I was selected for the team, I couldn't participate. Where could I bring this feeling of chagrin? It's still hard to forget and not to get mad at all that happened. (22:8)

The boycott of the Moscow Olympics was the biggest psychological damage in my career. (4:3)

Lastly, it should be noted that such difficult incidents did not necessarily occur one at a time. It was in fact more likely that one triggered another. For example, one athlete experienced several stressors in a short period of time. One stressor appeared to cause or aggravate another in a "domino effect,"-- the Olympic boycott and beginning a teaching

career caused extreme physical and psychological stress, triggering a serious neck injury, and bringing on losses at the worlds in consecutive years.

When the athletes encountered such obstacles as above, they did not hesitate to implement various coping measures in order to continue striving to achieve their dreams. The following section presents the coping/overcoming strategies employed by the athletes.

Overcoming obstacles. Athletes reported various specific strategies that helped them deal with obstacles and regain or enhance motivation for their athletic pursuits. However, it must first be noted that there were three underpinning aspects of successful coping, no matter what obstacles athletes were faced with and what specific coping strategies were employed. Those were a positive attitude towards breaking through such challenges, goal awareness, and self-talk which was found to be the central means of conveying one's attitude into action. These three aspects can be seen in many of the athletes' quotes in the following pages.

Although the reported strategies were found to be individualized from person to person, and some were more suitable to a certain type of obstacle, there was an overlap in the coping skills among different types of obstacles (See Table 7). The coping skills were generally grouped into six categories, including: 1) making use of inner strength (e.g., determination, belief, pride), 2) support from others, 3) reading motivational materials, 4) setting goals, 5) performing well, and 6) changing attitude. In addition, evaluating mental preparation was reported with particular regard to handling defeat. In the cases of coping with injury and life changes, time for recovery and for adjustment was reported.

Coping strategies related to making use of inner strength were mentioned most frequently. Inner strength refers to one's positive emotional force (e.g., determination,

dedication, belief, pride, & desire to excel). This provided energy or strength to withstand difficult tasks and/or situations, to improve undesirable situations, to remain in the chosen sport, and to prove to oneself what one is capable of. Four athletes reported that their determination to win, to achieve their goals, and to overcome adversity made it possible to endure and to continue with their sports:

It's the determination that I want to win the title no matter what. (6:2)

Because becoming the Olympic champion was what I decided to do. (24:3)

No matter what others said, I was determined: "I'll get revenge at the next Olympics." (13:3)

I took it as a given learning opportunity. So I was rather determined to overcome such challenges. (8:2)

Taking pride in not being a quitter, or the desire to prove oneself, assisted three athletes to withstand difficulties:

I didn't want to give up just for that. (24:3)

I left home with firm determination: "I can't go home unless I become a champion." I met strong opposition from my parents when I chose a school to pursue {sport}. That's why I always said to myself: "I can't give up now. I can't go home with defeat." (5:2a)

People seemed to be thinking that I was finished. And to tell you the truth, I was partially feeling that way, too. But more than that, I was thinking: "No way. The show has just begun!" (13:2)

Two athletes reported their firm belief that they could make it, or the consistent belief that "I'm No.1!" in coping:

A doctor told me that I couldn't go on in sports, but I believed that I could and started training on the bed three days after the surgery. (22:2)

I have a belief: "I'm the best as far as {sport} goes." Keep believing on a daily basis consciously. I mean it's easy to believe it when things are going well. But once

things get tough you start to think like: "I'm not sure if I can win," or "He looks stronger than me." But if you admit that completely, you're dead in this competitive sports circuit. (13:3)

One athlete also reported that desire to get better or to excel helped him overcome difficulties:

I think I could get over those losses because I really wanted to be stronger. (13:2)

Not all successful coping strategies were directly attributed to athletes' inner resources. Support and encouragement from others, such as coaches and other surroundings, played an important role in athletes' regaining motivation, particularly when they couldn't find inner strength.

I received a letter from my high school coach at a hospital....It was a letter of encouragement. And when I finished reading it, I could feel a gleam of hope coming through my soul. Then, I thought: "I must do something. Let's challenge it one more time." (22:3)

My coach at high school...seemed to know how to give effective advice. By listening to his advice, I tried to pump up my motivation. (5:4)

My students were proud of me...Boys and girls gave me their good wishes before a competition and it gave me lots of energy. (32:6)

Setting and resetting goals was a commonly used coping strategy. Setting specific goals, such as for a particular competition, a particular opponent or daily goals, were mentioned by several athletes:

I set small short-term goals as well as a big ultimate goal that'd be another four years later. Within the small goals, there are many smaller goals. I mean I look for physical and technical improvements. I think building up those small improvements is helping me stay on the top. (13:3)

I wrote down "BEAT {Athlete}!" on a piece of paper and stuck it on the wall in my room. (4:3a)

Resetting the ultimate goal was sometime necessary when athletes failed to achieve one, for

whatever reason:

I felt like God was telling me: "...Have a good rest for now and use this opportunity for reflecting on your {sport}. Then you can begin your life with a new goal...it's a brand new start. Take a new lease on life and try your best." (4:4)

Reading was another source of coping, reported by two athletes. When things were tough, the athletes searched for advice from reading materials to regain their motivation:

When my spirit was high that was just fine. But the problem was that it was often low. So I read books about the how-to of handling such motivational problems. (5:4)

Having a good performance served as a practical means of knowing or proving that one had overcome difficult times, and thus of restored confidence for several athletes:

There was a competition in the former Soviet Union and I was second overall, and I also won in an individual event. I said to myself: "I'm sixth in Japan but I came in second against the Russians...Now I'm going to go for the medal at the worlds." (22:2)

Finally, changing perspectives was cited as being important by two athletes. When one athlete was injured, he viewed it as an opportunity for resting physically and mentally, for reflecting on his performance, and for resetting his goal, saying: "God must have given me a rest" (4:4). Another athlete, in the face of hard training, looked for a feeling of satisfaction in training as well as the ultimate joy of winning in future:

I looked for a feeling of satisfaction...or I tried to change my attitude thinking like: "I work hard for the sake of the joy of winning." (24:2)

With particular regard to dealing with defeat, two athletes reported that evaluation of mental preparation strategies was effective. Their evaluation included determining the causes of both defeat as well as success in their past experiences:

I looked back on the previous experience of success and failure and recalled what I was thinking, how I brought myself up to the match, and what had worked well...what the right mental state was. (13:3)

In the case of dealing with injuries, the prime factor seemed to be "a matter of time" (32:6) for physical and emotional recovery. Likewise, to cope with life changes, time was needed for adjustment to the new environment.

In sum, the examination of difficult experiences clearly revealed that all the athletes underwent at least one major difficult time in their careers. The main difficulties included: defeats, injuries, daily practices and life changes. In the process of overcoming difficulties, six sources of coping were generally found to be effective: drawing on inner strength, getting support from others, reading motivational materials, setting goals, having a good performance and changing perspectives. With specific regard to handling defeat, evaluating mental preparation was reported as one of the useful strategies. In cases involving coping with injury and life changes, time for recovery and for adjustment seemed to be required. In all cases, a great amount of self-talk was employed. The core notions underlying successful coping seemed to be a commitment or willingness to overcome the difficulties, a positive attitude toward overcoming difficulties and goal awareness.

Having examined difficult experiences that athletes encountered in their careers and their coping skills, the following section discusses how they took advantage of difficult experiences, as well as successful experiences to find opportunities for learning.

Learning from Experiences

The fourth topic to emerge in examining athletes' growth toward excellence was that of learning from their experiences, which was discussed by eight athletes. Throughout their careers, the athletes experienced various degrees of success, failure, difficult as well as joyous times. These experiences provided them with rich opportunities for learning and growth.

Three athletes particularly emphasized the importance of experiential learning. One of them, for example, pointed out the necessity of both success and failure in the search for personal style and growth:

You must experience lots of things to understand yourself. Both success and failure. Otherwise, it's really difficult to know what works for you. Because no other person is the same. (13:3)

Although success was an important source of learning, important lessons mostly came after failures or struggles. As one athlete put it: "I'm here as I am now after all these tough experiences" (8:9).

A careful analysis of the relationship between experience and learning revealed that experiences led these athletes to three consequences in the process of learning: evaluation, familiarization, and discovery. A concrete event or experience relevant to sport was often followed by periods of reflection, evaluation, or re-evaluation of one's performance in practice and competition as well as other aspects of one's life. Evaluation refers to determining, systematically or intuitively, whether a specific experience was positive (good) or negative (bad) as a whole and/or analysing what aspects were positive and what were negative within the experience. After certain experiences, athletes paused to reflect and evaluate what they were doing or what they had done, and draw lessons on what needed to be done thereafter. Particularly after painful experiences, lessons were drawn so as not to make the same mistakes again:

...when I experienced the failure I said to myself: "Wait a minute. Am I doing the right thing?" I began to think a lot about what I had to do in order to win. (13:3a)

Secondly, experience provided athletes with opportunities to become more familiar with certain events or situations, a factor reported by five athletes. Specifically,

familiarization consisted of two aspects: 1) getting familiar with an unknown or difficult situation, and 2) getting to know oneself by means of recognition of patterns related to success and failure, after a series of experiences.

Stepping into an unknown or difficult situation could be frightening because of the uncertainty involved. However, once an experience had been lived, and some perspective on the situation had been gained, feelings of uncertainty were resolved and replaced with a sense of familiarity or comfort. To give an example, prior Olympic experience gave one athlete a sense of familiarity with the Olympics the second time:

[At the first Olympics] I stepped on to the mat while thinking: "What can I do? What can I do?"...[But at the second one] I knew what the Olympics was all about...I said to myself: "This is the Olympics. It's normal to get nervous."..In terms of the mental aspect, the first one was the uncertainty for the Olympics, and the second one was the familiarity for the Olympics. (6:8-9)

One athlete mentioned that practicing with a world champion gave him a sense of familiarity and competence with that level of competitions or opponents:

When I was a high school kid...I had an opportunity to practice with a world champion. For me, he was the man in the clouds at that time...During practice he got me, of course. But I had a kind of good feeling: "I can make it."..What I thought was: "Is that it? Is that the world's top class?" (32:2b)

Evaluation of repeated experiences also helped the athletes to know themselves better and to recognize their patterns related to success and failure. Six athletes referred to this in their interviews. Pattern recognition was a process of making sense of what had happened, including what went right and what went wrong by comparing an immediate experience to a series of previous experiences. While a single experience was sometimes not enough to allow athletes to recognize the factors contributing to a success or failure, experiencing several successes and failures could give them a better idea of those factors, helping them specify

what worked and what did not:

I think that my present success is attributable to various past experiences...When I lost at the world championship, I thought that it happened by chance. But after losing another time at the {Olympics}, I realized that I had to take it seriously, thinking: "I must find out what was wrong and work on it to overcome it." As a result, I could win twice at the world championships as well as at the Olympics after all. (8:9)

One athlete gave an example of how repeated practice experiences helped him or his body learn how to automatically respond to a movement and link one movement to another, no matter how the sequence was progressing:

My body knew everything...My body remembered what to do. Of course, things go differently each time...But if you say you make mistakes in competition because things go differently every time, that's ridiculous. My body remembered what to do to adapt and link one move into the next, no matter how it went. I practiced over and over again until my body did so. (22:7)

A third aspect of learning and growing from experience involved allowing experience to function as an opportunity for discovery or self-realization. In a way, discovery, or gaining knowledge, was a product of experience, and knowledge building was an on-going process, linking the present to the next experience. This discovery approach was found to be a fundamental aspect of learning, since this knowledge building process could be involved in any type of learning situation. Athletes sometimes hit on a thought as a result of one concrete experience, and sometimes developed insights through a series of experiences. When their discoveries were felt to be highly important, they became a part of athletes' personal philosophies, or way of being.

The athletes acquired diverse knowledge through experiences, relating to practice, competition, aspects of life relevant to sport, and attitude in general. Some of their lessons and discoveries they encountered in the course of their careers were described as follows.

Some athletes referred to learning about practice. One athlete realized, upon being injured, the importance of practice and the usefulness of mental imagery as an implementation aid in practice:

I realized there are two kinds of practice. One is actual moves. Physically. The other is mental imagery. Imagine a certain move at first and then do it in practice. During the recovery from the second injury I learned the importance of these two kinds of practice. (22:3)

Since then my {sport} has completely changed. For so many years before my injuries, practice was practice. I used to just hope: "It's going to be okay in competition," and I failed. I realized the importance of practice. It became really clear that I must practice as if going into a real competition. (22:3-4)

One realized from painful experiences not to overwork:

You never know when you're crossing the line from maximum work load to overwork unless you experience it. I mean I had so many injuries or got into bad shape because of overwork. So I learned how far I can go, both physically and mentally, through many experiences. (13:4-5)

Two athletes found out how to handle practice at times when they were not in optimal shape from various past experiences:

From past experience I learned the know-how of practicing when I'm injured. (10:5)

Some athletes spoke about learning lessons related to competition. For example, two athletes learned to accept the existence of pressure or nervousness at competitions:

The lesson I learned from the experience was that it's not so bad to get nervous. I learned to accept it as normal. Because even not having any worry made me worry! (4:9a)

Two athletes learned how to optimally spend time at a competition site from past experiences:

This is all about experience. On the day of competition, I was behaving spontaneously to reach my psychological peak at the right moment, from past experiences. (22:10)

One athlete learned how to optimally prepare to reach a peak level while approaching a

competition:

It now comes naturally. I learned it from my failure at the {Olympics}. If I get overly excited three or four days before my match, I'll get burned out on the day of competition....So just stay relaxed as much as possible during the final conditioning period. Focus only for an hour at practice and be relaxed elsewhere. (13:10a)

One athlete learned not to imagine himself losing:

While I'm in bed, I imagine myself fighting at a main competition. I never ever imagine myself losing, though. Because I used to imagine losing before a tough fight. And when I pictured losing I indeed lost. So I learned from my experience not to picture losing images. I always try to picture images of myself winning at least at the very end of the match, whether I struggle or not. (13:7)

Struggles made athletes think of evaluating their practices and other sports-related aspects of their lives. One athlete realized the importance of training with purpose and considering aspects outside of training such as nutrition and mental control:

Before it [loss] happened I hadn't looked after myself so much. I mean I went through the given practice schedule harder than anybody else. More than 100%. I was practicing with 120% of my energy...But I wasn't thinking about the content of practice. When and how I should practice or what I should eat. But when I experienced the failure I said to myself: "Wait a minute. Am I doing the right thing?" I began to think a lot about what I had to do in order to win. And I realized that I couldn't win by practicing blindly. So I learned to plan a practice schedule by myself...I started to work on things other than training itself...mental control was one of them. (13:3b)

One athlete recalled realizing the importance of taking control of his performance:

You receive advice from so many coaches when you go to the Olympics. If you accept everything they say, you won't have your opinion any more and you'll become nothing but their puppet. I realized that this wasn't the way it should be. So I began to develop my own ideas, digest what coaches said, and combine those with mine. (8:5)

After going through difficult times, some athletes developed a personal philosophy about how to deal with adversity. Their philosophies included four different types of attitude; tolerance, courage, challenge, and patience. Four examples were:

There are times you must bear down. (5:2)

Sometimes you must be willing to jump into adversity by yourself. (5:2)

Don't take it as a hardship but as a learning opportunity. Take it as a challenge. (8:14)

The wall is not made of iron but ice, so it will melt and be gone when spring comes. (32:4)

Although the acquired knowledge was mostly related to practice and competition, it also reached beyond the sports context, encompassing such things as one's attitude in general.

One athlete learned to apply positive thinking in life from his success experience:

Whatever I do...I became able to think: "Anything is possible." Positive thinking. Always, anywhere anytime. (24:3)

As a whole, it should be noticed that the three components of experiential learning: evaluation, familiarization, and discovery often overlapped with each other, rather than occurring separately. For example, while an athlete evaluated his unsuccessful performance at a competition, he discovered a cause of his mistakes, and generalized his ideas about his patterns of success or failure by comparing the last incident with his past experience. As a consequence of such processes, the athletes built up or developed personal knowledge and philosophy, about personal style and patterns, strengths and weaknesses, preparation strategies, optimal ways of training, positive/right attitudes, and skills to deal with adversity. The relevant information was extracted from the stored knowledge and modified if necessary, depending upon the circumstances. Athletes believed that applying the knowledge gained from experience contributed to their improved performance, growth, maturity, and eventually to their success. Learning became truly integrated when lessons were acted upon in a later performance. For instance, one athlete stated that "if your evaluation is not reflected in the

later performance, it's not a true evaluation" (22:12).

In sum, this section discussed the importance of experiential learning. Although the success experience was an important source of learning, difficult experiences often provided a richer opportunity for learning and growth. Three main functions of experiential learning were found, including evaluation, familiarization, and discovery. These three aspects, however, did not occur independently, but rather interplayed among each other. Although some concrete experiences had stronger impacts on an athlete's performance than others, growth was basically attributable to an on-going process of learning throughout the athletic career. Learning became true learning when the lessons were acted upon in a later performance. In other words, demonstrated improvement or success was the proof of true learning. As a consequence of experiences, athletes developed personal knowledge and perspectives that facilitated their performance improvement and further success. In the long-term, such learning experiences appears to have broadened an athlete's perspectives in sports and life, enriching his growth and maturity as an athlete and as a person.

In the examination of athletes' growth toward excellence, the four themes which have been discussed so far dealt with topics associated with athletes' personal or internal factors. However, there were also factors other than personal that enabled the athletes to attain the level of success that they achieved. The following section discusses the nurturing factors that were provided by the athletes' environment.

Nurturing Factors

The fifth subtopic deals with a support system comprised of individuals in the surroundings that nurtured athletes' growth and success. Eight athletes mentioned the

contribution of such surroundings; three responding to interview questions regarding relationships with coaches, teammates, family, as well as significant others, and five mentioning it by themselves.

Athletes interacted with several different social groups during their careers. As children, social groups with which they interacted were mostly limited to coaches, teammates, and family. Their social scope was broadened in adulthood, particularly with their success, including trainers, physiotherapists, nutritionists, members of the university or the company, colleagues, students, people from their local towns, fans, and the media. In this study, the social groups were sorted into five main categories: 1) coaches, 2) family, 3) teammates, 4) significant others, and 5) general public.

These groups had either positive or negative influences on the athletes. Some athletes mentioned hindering factors caused by people of no significance to them. However, as a whole, the athletes reported the positive contributions of the surroundings to their success. For example, one athlete stressed :

I might have an exceptional talent, being so successful. I made so many more efforts than anybody else, and I used my head more than anybody. But that wasn't the only thing. The other thing was strong support from my surroundings, and my great coaches. Without these people, I couldn't have become as successful as I am. (4:5)

The following describes the influences on the athletes, whether positive or negative, of each of the five social groups as well as types of support.

Coaches. Coaches that athletes referred to included two types: personal coaches and national coaches. Personal coaches were those whom athletes considered as their main coaches, since they saw each other for years on a day-to-day basis, like it or not. Athletes usually went through several different coaches during their careers. But one or two coaches,

often those of the athletes' high school or university clubs, had been most influential. The athletes often kept in touch with these main coaches even when they were no longer on their teams.

Five athletes reported receiving emotional support, such as encouragement and advice, from their personal coaches, particularly when they felt lost. Support was conveyed either in oral or written form:

A coach I met in high school was a really great person...He hit me when I wasn't doing well, but at the same time, he constantly gave me encouragement, saying: "Yes, you can! You can do it!" I think that was a big factor in my success. (5:3a)

[Before the Olympics] my coach gave me a letter...It said things like what the Olympics is all about, or like: "I can't do anything for you now. So it's only you who can do things to make it." (32:13)

One athlete felt that writing could be a more effective way of sending a message.

Writing is sometimes much more effective than saying things verbally...It sticks to your heart better...It's a great way of sending a message. (32:15)

Three athletes mentioned technical support, such as technical advice or feedback, from coaches. Others seemed to assume that this is what coaches were for, although the interview questions did not specifically address this point. An example that characterized technical support was:

My coach fixed the direction of my {sport}. When I was heading in a wrong direction, he gave me advice: "Isn't such-and-such the style of your {sport}? Isn't the point of this technique such-and-such?" (22:16)

Four athletes reported the positive influence of coaching styles or coaches' attitudes upon their performances. They mentioned four different aspects: a mutually trusting relationship, open communication, giving an athlete independence, and stressing the importance of aiming high. The first three were mentioned in reference to coaches encountered at the mastery stage of

athletes' careers, whereas the latter referred to coaches at the junior levels. Three examples representing the first three aspects were:

I had a mutual relationship with my coach. I trusted him in terms of planning training schedules as well as a person. Trusting each other. (24:14)

When I wasn't really up to it, I talked to my coach and we modified the practice. We always found a best way through good communication....A two-way communication. Opening ourselves up to each other. What was good about my coach was that he created an atmosphere in which I could share my feelings and opinions. (8:13)

My coach let me do only what I wanted to practice. In terms of attitude, there is a difference between those coaches who watch athletes practice and those who do not watch. My coach was really watching my practice. (22:17)

The following two examples describe how a coach helped one athlete form a frame of mind for aiming high:

My coach constantly told us that he was coaching {sport} to make us be the best in Japan or in the world...Since junior high, I was taught to fight against the guys who were bigger than me. As long as I competed at home, most of my opponents were smaller than me. Then, it was easy for me to win if I took advantages of my weight and power. But the problem with this was that I wouldn't be able to win when I fought against bigger ones. It was the weakness of Japan's {sport} in {weight categories} in the world circuit...So my coach told me that I had to learn how to throw bigger opponents. And I naturally learned to picture that level of competition as my ultimate goal in my mind. (4:2)

When there was the National championship in {province}, my coach took us kids to the stadium and explained [the matches]. Or when the Olympics was broadcasted on TV...he brought his TV to the gym to show us...By watching the highest level of competitions, it made me feel close to that level of competition in my mind. (4:2a)

Further, one athlete commented that having the right coach at the right time was the key to his success, especially because school-based sport clubs are dominant in Japan.

If you change your school, your coach will change, too...In my case, I had three coaches, junior high, high school, and university...That I met different coaches worked positively...They taught me the right knowledge at the right times. So if I met a junior high coach at high school, perhaps it wouldn't work as well. (22:20)

While athletes' statements on their personal coaches, indicated relatively positive aspects, their opinions about their national coaches were more neutral or negative. Although some athletes were fortunate enough to have their personal coaches among the national coaches, this was not always the case. Two athletes felt that the national coaches only played an official role. They mentioned two main reasons; those coaches usually knew too little about the athletes personally to give good advice as well as to establish a mutually trusting relationship, and they were not easy to talk to since they were the authority figure. For instance:

I see the national coaches only at the training camps for the national team...and they are not watching my practice everyday. So they don't really know what my physical and mental conditions are at times...Quite frankly, the national coaches only mean official to me. They watch my practice occasionally, and tell me what to do about techniques. It doesn't make sense. Also, they are mostly looking at me only when I'm doing well. (10:12)

We meet the national coaches only for certain occasions. I don't know them so much...So we can't really say what we want to say. Also, we as athletes can't fully open up our discussions with them because they are seen as the authority figure. (8:13)

In brief, most athletes reported positive contributions of their personal coaches, such as technical and emotional support as well as proper communication styles and attitude. Personal coaches were often found to be the most significant persons in athletes' development, due to the frequency and duration of the time they spent together and the nature of the teacher-student relationship. On the other hand, some athletes expressed neutral or negative feelings about their national coaches.

Although coaches were the persons who had the greatest and most direct influence on the athletes in terms of sport skill development, they were not the only persons who contributed to athletes' success.

Family. Family that athletes referred to included parents, grandparents, and siblings.

Five athletes reported receiving positive support from their families, whereas two athletes met opposition. Among those who received positive support, three mentioned their parents having provided five types of support: not interfering; not urging athletes to quit; creating an optimal home environment for pursuing sports; nutritional considerations; and financial support (22:18). Support from family appeared to be significant but indirect. To elaborate, the first two types of support, not interfering, and not urging athletes to quit, indicated an indirect way of support. Parents showed their understanding or respect of their children by avoiding interference or giving their children a choice of their own. It seemed that some parents would have preferred their children to avoid injuries, which was virtually impossible, rather than risk their health in reaching athletic excellence. Four athletes reported similar notions. For instance:

My parents said nothing about what I decided to do. They must have thought: "What? Why {sport}?"...they perhaps wanted me to quit, to tell you the truth. Because I had to go on strict diets and had lots of injuries. As parents, They wanted me to live an ordinary life rather than become somebody...But fortunately I was given freedom in my choice and I really appreciated them for that. (24:15)

The third and fourth types of support, creating an optimal home environment for pursuing sports, and nutritional considerations, were characterized by the following quotes:

My parents were really cooperative. They created a life circle in which we kids could pursue {sport}...I had an excellent home environment to do {sport}. (8:12)

They understood what I was doing, and when I got home later than supper time after practice they specially prepared an "athlete's meal" for me, making sure to include every nutrient. (24:15)

Two athletes, on the other hand, reported that their parents expressed disapproval of their decision to pursue a sports career. Parents of one athlete opposed their son's decision in

selecting a high school for his athletic pursuit, since he would have to leave home. Also, the mother of one athlete was so concerned about injuries that she often advised her son to quit.

For example, one athlete said:

My mom often says: "It's time you stopped."...Because we have lots of injuries.
(10:13-14)

One of the athletes who met opposition from his parents added that opposition from his family in fact helped him sustain himself in his athletic pursuit. As he put it:

I chose a school for {sport}, regardless of my parents' opposition. I left home with strong determination that: "I can't go home unless I become a champion." This always helped me hang on: "I can't give up now. I can't go home without success." (5:2b)

One athlete indicated that he learned to accept his parents' attitude about sport:

What my mom says is that {sport} isn't the only thing in my life. No matter how successful I am now in sport, I'll be miserable if I hurt myself and have to live the rest of my life with a handicap...I basically have the same idea as she does. (10:14a)

Two athletes mentioned that their grandparents were influential, particularly when the athletes were young. An example of care from a grandparent was:

When I was injured, my grandpa didn't allow me to practice....Thinking back, his judgement was right. He taught me to take care of myself and to recover well when I get injured. (4:3).

Finally, one athlete talked about his brother's technical and possibly emotional support. He said:

My brother was doing {sport}, too. So he taught me lots of things. (8:12)

In brief, parents, grandparents, and siblings were included in a category of family.

Family appeared to have a less direct impact in terms of the development of athletes.

However, it should be noted that the family's influence could be considerable in a wide range of aspects, for instance: nutritional considerations, financial support, creating an optimal living

environment, and parents' attitudes transmitted to their children. What was found to be unique in this study was that athletes appreciated their parents for providing support by refraining from asking the athletes to quit, and not interfering with anything the athletes did. Contributions of grandparents and siblings consisted mainly of emotional support. Also, quite surprisingly, those athletes who became successful did not always receive positive support from their families.

As noted above, the roles of coaches and family were mainly found to be those of helpers, but those of teammates differed.

Teammates. Four athletes mentioned the influence of their teammates, two reporting positive and the other two negative aspects. Two athletes who reported positive aspects indicated that their teammates played a role as motivators in practice. One gave as a reason that his teammates were rivals, in a positive sense. The other expressed a sense of support among the team members while training hard:

In {sport}, you actually have to compete with your teammates, too...So they play a role of motivators in practice rather than helpers. When I see them, I tell myself: "He is working hard. So I have to work even harder."...Teammates are your rivals in your mind, but in a positive sense. (10:12-13)

...I got into a circumstance where I had to practice by myself. {Sport} is an individual sport, but when you practice with your teammates, there is an element of helping each other or enabling you to get through tough things...It was very hard to practice all alone. (22:6)

One also mentioned receiving peers' encouragement (emotional support) on the occasion of injuries:

My peers came to see me in the hospital every day, telling me that I was still the sixth in the nationals. (22:3)

On the other hand, two athletes implied that there were some team members who

could hinder their development if they let them, such as senior members. However, they avoided this problem in the following ways:

If you don't have a good relationship with your teammates, you'll have unnecessary worry. And it will affect your practice, too. So I tried to have a good relationship with everybody...And I said what I wanted to say to everybody, whether they were older or younger. In that sense, I had nothing that hindered me. (24:14-15).

Those guys who were committed to {sport} get together in a group. And those who were not didn't stay with us. I was among the ones who worked hard...so people around me were all nice guys. (8:13)

In brief, influences of teammates could be either positive or negative. In terms of positive aspects, the role of the teammates often seemed to be as motivator instead of as helper. Negative aspects referred primarily to a group of athletes who were not committed and a poor senior-junior relationship.

Although coaches, family, and teammates were some of the people closest to the athletes, there were also some other people who had close relationships with and contributed to athletes success.

Significant others. This category, significant others, included several different groups of people, other than coaches, family, and teammates, whom athletes perceived as having a significance in their lives during their careers. They were the people with whom athletes had close relationships, such as, colleagues, school directors, and students.

Two athletes appreciated the directors of their work places and their colleagues for facilitating a good environment and practice conditions. Such people provided a physical environment in which athletes could concentrate on their sports. For instance:

I was teaching at a high school at that time. So I had classes and had to take care of my students. But my colleagues all told me: "I'll do this for you today. All you have to do is to go to practice or to the training camps."...and they sent me out. The head

of the school was very understanding, too. (5:6)

Two athletes also reported emotional support. For instance:

The rector of my university...he loved {sport} so much. And he treated me like his own grandson...He hoped that his guidance would help me pull out all my potential to make it. He also wanted to equip me to become a person who in devoted to developing Japan's sports or {sport} in the future. He not only wanted me to make it as an athlete but more...as a man. (4:5)

My students were proud of me. Of course, other people like my family and my high school coach gave me lots of support. But my students were the people with whom I communicated everyday. (32:6b)

In brief, those whom athletes perceived as significant were the persons who were close to them, including the head of the school, colleagues, and students. Some of these people contributed to the athletes' success by facilitating practice conditions, whereas some others gave emotional support.

Those groups of people who had a close relationship with athletes included coaches, family, teammates, and some significant others. However, their social interactions were extended, particularly with their success, to the general public.

General public. This category, the general public, refers to people from the athlete's home town, work place, university, to the public in general, the media, as well as the sports organization. Two athletes mentioned emotional support from some of those people:

[When I went to the Olympics] people from my town came to the airport, packed in three buses, to give me a cheer...They gave me a Japanese flag filled with their wishes. When I saw it, I felt I just had to do it. (32:14)

I had support from various people, like people from my home town, from my university, and also from my company. (10:14)

On the other hand, four athletes had negative impressions of the reactions and criticism received from the general public. Three athletes stated that the reactions of those

people were typically harsh after athletes were defeated at the major international competitions while being expected to win. For example:

I lost in {world championship} and in {Olympics}...Normally if you lose twice in the worlds, people start to think you are no longer good enough. The media had written all kinds of good things about me before. But at the point I lost twice in the worlds, they became so hard on me. For example, they asked me a so insensitive question right before a match like: "People say you are not good enough any longer. What do you think about that?" (8:11a)

Two athletes claimed that the media would be better welcomed if their attention were given more constantly, instead of only prior to the Olympics. For instance:

The media is partially responsible for that...If they came and saw me more constantly, instead of giving so much attention only before the Olympics, I would welcome them better. But unfortunately they only care about their business. (10:15)

People cheer you up only before the Olympics, saying: "Do your best for the sake of the country." But I prefer them to have a broader sense of support. (8:14)

In sum, upon examining nurturing factors, social groups that athletes interacted with during their careers were sorted into five categories: coaches, family, teammates, significant others, and the general public. Athletes felt that they did not necessarily have constant support from every group in their surroundings. However, there were at least one or two individuals who provided constant support to athletes or were influential in athletes' growth.

The contribution of personal coaches to athletes was the most direct and influential one with regard to development of sport skills, whereas that of family rather appeared to be a "behind the scenes" or in some case wavering type of support. The role of teammates was mainly as motivators, rather than helpers. Some other groups in the athletes' surroundings also contributed to their success by facilitating practice conditions and providing emotional support. Some of the general public were supportive, whereas some others, particularly the

media, could be a hindering factor. On the whole, it became clear that support from their surroundings was one of the factors that contributed to athletes' success.

In summary, the first main topic area, growing to be an exceptional athlete, described some developmental factors associated with athletic success. It consisted of five subtopics; initial sport experience, realization of potential for success, difficult experiences, learning from experience, and nurturing factors. The first four themes were related to personal factors, whereas the last theme dealt with social factors. In integrating the five themes, two general conclusions were drawn. First, each individual had a unique history and background, and thus a unique path to reaching excellence, although findings under each theme revealed commonalities among some athletes. Second, athletic success did not come either by chance or by any short-cut. A demonstrated international success was only achieved as a result of years of accumulated experience, learning, and effort, together with sufficient nurturing from the athletes' surroundings. Along with the development of sport-related skills (physical, technical, & mental skills), athletes constantly built up self-knowledge which, in the long-term, enabled them to reach and remain at the highest levels.

Having illustrated success factors in the process of reaching excellence, the next section describes athletes' views on their sports and lives once they had already reached the highest level in their respective sports.

Athletes' Views on Their Sports and Lives

An examination of elite athletes' perceptions toward their sports and lives was aimed at identifying those factors underlying athletic success in a larger context. Athletes' views, feelings, and opinions about their sports and lives were described throughout the course of

interviews, as well as in response to a specific question-- "How would you describe your life as an athlete?". As a result of the analysis, four main themes were identified, including: 1) sport commitment, 2) meaningfulness in sports, 3) self-directedness, and 4) the importance of mental aspects in sports. The following pages illustrate in greater detail the athletes' insights under each of the four themes identified.

Sport Commitment (Sport is the Center of My Life)

In describing athletes' perceptions of their sports, the primary theme identified was sport commitment-- sport is the center of my life. For instance, the quote: "Sport is/was/became the center of my life" was consistently stated by six athletes. Also, when the athletes were asked a specific question: "How would you describe your life as an athlete?", despite the wide range of possible responses, the first thought that came up with one third of the group was total commitment to their sports, for example: "It's everything in my life" (13:4) or "Almost 100% of my life" (22:4). Only one athlete who was currently struggling, denied total commitment to sport:

...{sport} isn't the only thing in my life. No matter how successful I am now in sport, I'll be miserable if I hurt myself and have to live the rest of my life with a handicap...My life will be boring if I can't do things that I want, after retiring from sport. Life after sport is much longer. I take it reasonably. (10:14b)

Note: This is the athlete whose mother reinforces this notion.

Those athletes who indicated a high level of sport commitment presented some examples of their physical and emotional devotion to their sports. Five athletes reported a sport-centered cognitive orientation-- always thinking about or being aware of sports. To be more accurate, they often switched their thoughts spontaneously to their sports while outside

of sports settings. For instance:

If you want to reach the highest level, you've got to have a life centering around sport. In my case, sport concerns were always somewhere back in my mind, even when I was having a drink in a bar. (24:16)

People who don't care about {sport} so much may think of their girlfriends in bed. But I often pictured images [of tomorrow's training context] while lying on the bed. (24:6)

Athletes' commitment to their sports was not only substantiated at the cognitive level but also in their concrete behaviors. Athletes reported three types of commitment behaviors: 1) prioritizing sport in life, 2) extracting sources of sport-relevant improvement from daily life, and 3) training during free time.

First, while there was a great range of possibilities in making choices of behavioral orientation in day-to-day living, sport was set as the first priority in the athletes' lifestyles, consequently affecting other aspects of their lives. Five athletes mentioned selecting daily activities according to the degree of benefit to their sports:

My life completely revolved around working for {sport}. For example, I never did things no good for {sport}. Or I took it the other way around and I did things that benefit {sport} even if people say I better not...I started to think of every aspect of my life to make it best work for {sport}. (13:2)

Two athletes mentioned drawing from sources of learning and improvement for their sports outside of sport settings. They, automatically extracted cues for sport-relevant improvements from their daily experiences:

I think {sport} was almost 100% in my life. To give you an example, one day I went to a concert...And I was swept off my feet by his performance. And my hands automatically began to clap, saying: "How fabulous!" The clap wasn't superficial. It came from deep down in my heart for his wonderful performance...Then I said to myself: "Wait a minute," here it comes again, my mind shifted into {sport}, "I want to receive the same clap for my performance." I used to be performing for judges. But from that day, I learned to perform for the audience. (22:4)

Two athletes reported that their commitment to their sports drove them to train during free time, including in the middle of night:

{Sport} was the center of my life for sure....For example, at the junior-high ages...when I woke up in the middle of the night, like two or three o'clock, I thought: "I feel like I'm wasting my time if I stay in bed."...Then I started to practice a technique. (4:2)

Most athletes spoke of their high emotional commitment to their sports, and one athlete also pointed out that: "Virtually I'm making a living with {sport}. That's one reason I'd say sport is everything in my life" (13:4).

This section has revealed that making a commitment meant a physical and emotional devotion to the sport, requiring a great amount of time, energy, and effort. To keep striving in a competitive sport circuit, despite such tremendous demands, the athletes must have had a good reason which enabled them to sustain a high level of commitment. The next theme deals with the search for such reasons.

Meaningfulness in Sports

The second theme in the examination of athletes' perceptions of their sports deals with a sense of meaningfulness in sports which was discussed by six athletes.

Meaningfulness in sport refers to having a sense of values, worthiness, or importance in one's respective sport. Three retired athletes recalled, in retrospect, that their careers had been entirely fulfilling. For instance: "My sport career was truly fulfilling. A happy life as an athlete," (4:5) and "I feel I spent my whole life during my sport career" (6:3).

To illustrate the perceived importance of sports from another point of view, two athletes experienced depression or a feeling of emptiness in life when faced with the

termination of their athletic careers:

After retiring from my sport I thought about suicide, really...I almost had a nervous breakdown. Because if I look back on my life, I was thinking about nothing but winning since my high school...It was everything, the only thing...[After retirement] life looked totally different from the one that it used to be...Things appeared to be working as usual around me in the gym, though...Just the way it used to be. But something was missing. What was missing was that I used to be the one who was training there with my 100%. But it's not necessary any more...As an athlete for more than 10 years I kept coming to the gym and trained harder than anybody else...I mean I was lost. I didn't know what to do. (32:7)

Athletes described various sources of perceived value in sports participation.

Included were eight different sources of meaningfulness: 1) being involved with one's sport, 2) being part of an elite, 3) being in a competitive sports circuit, 4) testing and discovering one's potential, 5) challenging oneself to achieve one's goal, 6) experiencing thrills that can not be experienced in ordinary life, 7) gaining fulfilment from practice, and lastly 8) self-growth. To illustrate each of the eight sources, the first source, meaningfulness in becoming involved with one's sport, meant a general feeling of appreciation in getting to know one's sport. For instance:

I'm so glad that I happened to know {sport} or I chose to do {sport} after all. (24:4)

The second source, meaningfulness in being part of an elite, was characterized in the following example:

After I won at the {Olympics} as well as the world championship I retired once because things were too hard to bear. So I started teaching at a high school. Then what happened was I began to feel my life was so boring. Then I came back to {university} and started {sport} once again, a year and half after retirement. At that point, I realized...how much I wanted to stay elite. So I started all over again and challenged for the {Olympics}. (5:3)

The third source, meaningfulness in being in a competitive sports circuit which is for a limited time only in one's life, was characterized by the following quote:

Life as an athlete, it's something you can do only now. Only now not later because of the age factor. It's the time that I can push myself to the limit. I mean in competitive sports you can't pull out all of your potential when you get older because physical fitness is fundamental. (8:2)

The fourth source, meaningfulness in testing and discovering one's potential, was characterized by the following quote:

...I want to pull out all my potentials, hidden potentials, while the getting's good. I want to test and see what I've got. (8:3)

The fifth source, meaningfulness in challenging oneself to achieve one's goal, was characterized by the following quote:

I sort of planned my life and set my goals since junior-high. Although the probability of achieving my goal was pretty low, I worked hard for it. I think it is indeed something to work hard in pursuit of what you've decided to do, whatever it is. It's such a nice feeling. (24:3)

The sixth source found was the meaningfulness in experiencing highs that could not be experienced in ordinary life. Those highs included a sense of reward or joy at winning, encountering and overcoming obstacles, and pushing oneself to the limit towards a competition. The following three quotes characterized these aspects:

Stuff like the joy of winning, a feeling of chagrin at the losses, and the intensity that you experience while pushing yourself to the limit toward competitions, you can't experience them very often in ordinary life. It's hard to put these thrills away out of your life. (8:2a)

You learn the real joys of sports only after overcoming obstacles. (8:15)

The joy of winning or "all the efforts I made was worthwhile doing" kind of joy cannot be substituted by anything. So I was training hard everyday to get that joy. (24:2)

For the seventh source, some athletes found a sense of satisfaction, fulfilment, or achievement from daily training:

When practice was over and I jumped into a warm bath I felt: "What a happy life we have!" It's like a sense of satisfaction. (32:6)

Practice was always hard. But I still could find pleasure in it. It's different from enjoying watching TV or movies. But it's like a sense of achievement or a sense of fulfilment. "I did this much of training!" kind of feeling. (24:2)

Lastly, meaningfulness in self-growth in terms of improving sport skills and achieving personal growth, was characterized by the following quote:

When I look back, I can see how much I grew and how the style of my {sport} has changed. It's a kind of fun to see myself change. (8:2)

This section has discussed a system of values and meaning elite athletes found in their sports, illustrating athletes' general feelings towards their sports. The next section, becoming more specific, deals with athletes' attitudes towards sports participation, and the mindset which they felt necessary for reaching the highest levels in their respective domains.

Self-Directedness

The third theme underlying athletes' success was identified as self-directedness. This was mentioned by six athletes. At some point of their careers, athletes learned to entirely take charge of their performance and their lives. Self-directedness consisted of four subordinate aspects: 1) ability to engage in sport activities on one's own initiative, 2) ability to engage in sport activities for one's own sake, 3) ability to be responsible for one's performance and aspects of life related to sport, and 4) ability to discipline oneself.

The first aspect of self-directedness, engaging in sport activities on one's own initiative, was reported by three athletes. Athletes had to be capable of finding self-motivation, interest, or enthusiasm to practice and learn:

It's almost impossible to reach the highest level in sports if a person isn't willing to

improve himself by himself...because sports literally involves so much in the way of dealing with demands, intensity, and pain. (4:11a)

The second aspect of self-directedness, performing and practicing for oneself, was mentioned by six athletes. They stated that competitive sports participation was primarily for their own sake and not for pleasing others:

I was doing it on my own account. Although I could share the joy with other people, it should be a result of what I did for myself. Because if you don't do it for yourself, we as human beings would never be able to push ourselves to the true limit. Some people might put up a front, saying: "I'm doing it for everybody who is giving me support." But let's be honest. Ask if they can work really really hard for somebody else. No. I don't think so. (24:14)

I was doing for myself. Perhaps what I did might have pleased or encouraged some others, but it wasn't my intention. (22:5)

The third aspect of self-directedness dealt with being responsible for all aspects of one's athletic career. Four athletes discussed the importance of having a sense of full responsibility for their performance, including both practice and competitions, as well as for the overall aspects of their athletic careers, such as paying attention to physical, mental, and nutritional conditions. Self-responsibility, in other words, helped athletes gain a sense of control over their performance and be in a position to determine the direction of their pursuit. An example that characterized this perceived personal responsibility was:

It may sound impudent, but as a competitor I thought I had 100% responsibility for my performance...I thought: "It's me who does all the work. All by myself." (22:17)

The last aspect of self-directedness, the ability to discipline oneself, was reported by four athletes. Athletes had to be capable of imposing on themselves the necessary discipline for daily training and life in general:

Unless you are capable of disciplining yourself, and not being driven to do so by coaches, it's difficult to be successful. (6:12-13a)

There are lots of sloppy guys around me. Of course there are times I goof off, but basically I hate fooling around like that. I don't feel good about myself unless I fulfil my practice time. (10:14a)

While the last three sections have dealt with athletes' personal feelings, perceptions, and attitudes towards sports participation, the next section presents athletes' opinions about mental aspects in sports.

The Importance of Mental Aspects in Sports

Interestingly, six athletes touched upon the importance of mental aspects in sports, despite the fact that no question directly addressing this issue was asked. They explained the importance of mental skills in their success in two ways: comparing it to the importance of physical and technical skills, and referring to inherent physical talent not being a determinant factor to their success.

First, some athletes perceived mental aspects of sport to be more vital in their success than physical and technical aspects. For instance:

Ultimately what counts is all mental...Even if you've got great physical strength and speed, you can't make it without it. It's often said that strength, speed, and power are the three essential factors for {sport} success, and mental is a plus or whatever. But ultimately what directs you to do anything is your mind. (32:19)

As well, three athletes pointed out the importance of the mental aspects of competitions, particularly under critical circumstances or unfavorable physical and technical conditions:

There is a [Japanese] expression: "Mind, Technique, & Body". And why is it that mind comes first?...Even if both physical and technical skills are there, if mental aspects are missing, like being off guard, then it will bring on losing. This comes from my personal experience. In the {first Olympics} I couldn't be better physically and technically, but I was so frightened that I wasn't mentally ready...On the other hand, at the {second Olympics} I was physically way way down because of a knee injury. Consequently the injury dampened the effectiveness of my techniques, too. But I was mentally fit. And I think that brought me in winning. (6:12)

Three athletes felt that they did not have innate physical talent. They explained that the non-existence of exceptional inherent physical talent was substituted by their mental strength and sheer effort in their achievement of the highest level of success:

I was a very slow learner in terms of skill acquisition...That's why I had to take many small steps before mastering a new skill. I guess my peers were thinking: "Why is he having such unnecessary practice?" But I didn't have much choice. Because I was told by my coach that I didn't have a talent for {sport}. I couldn't run so fast. I couldn't jump as high as others considered as being elite. Also, when I got to do the twists, it took a long time...From such various reasons, my coach told me that I didn't have a [physical] talent for {sport}. It was the reality. But he also told me: "However, you have a talent to make efforts. So you have to train twice or three times harder than others." (22:6a)

Thinking back to my own experience, I was able to win the Olympics because of my mental strength. I don't think I was born with a physical talent...People often misunderstand that, thinking that I did, but actually I didn't have it to the extent of being capable of winning the Olympics. What counted was the hard training to built up my physical strength from what I had, so that I could live up to that high level...In that sense, if you take advantage of mental strength, it's possible for anyone to make it. (24:16)

This section clearly revealed that the elite athletes interviewed believed in the importance of mental skills for sports success. This point was particularly evident in that no direct question regarding the importance of mental skills was asked in any of the interviews. Thus, the theme was completely founded upon unsolicited input from the athletes. Some athletes believed that mental skills were more important than physical and technical skills in determining athletic success. Other athletes felt that the mental aspects were decisive in whether determining an athlete was able to perform successfully at competitions, particularly under critical circumstances. Furthermore, some athletes insisted that they had no exceptional inherent physical talent, deserving of the success that had been achieved.

In summary, the examination of athletes' views on their sports helped capture the

essence of elite athletes' perceptions of their sports and their lives as athletes. It consisted of four main themes: sport commitment, meaningfulness in sports, self-directedness, and the importance of mental aspects in sports. The results indicated that the athletes had a very strong commitment to their sports, physically and emotionally, and that they derived value and personal meaning from sport participation, for various reasons. Some athletes pointed out the importance of self-directedness or having a sense of control over their performance in reaching a high level of excellence. The result also revealed that some athletes perceived the importance of mental aspects of excellence to be more important than physical and technical aspects. Some athletes felt that their success was attributable to the great amounts of effort and mental capacity.

The larger topics, growing to be an exceptional athlete and athletes' views on their sports, have captured issues associated with athletes' growth and lives. The following section deals with a more specific yet important aspect of athletes' living; that is, daily practice.

Mental Approaches to Daily Practice

Typically, practice filled the largest portion of athletes' lives. For many years, this group of athletes devoted most of their time to training, day after day. Hence, it certainly was one of the most important topics to be examined in identifying factors associated with success in sports. The themes were identified based mainly upon athletes' responses to questions concerning mental approaches to practice (see Appendix B). This section describes the athletes' mental approaches to daily practice to maximize its effectiveness. The reported athletes' insights in this regard were sorted into four main themes: self-directed practice, purposeful practice, quality practice, and controlling practice. A summary of factors

contributing to effective practice may be referred to in Table 8.

Table 8
Factors Contributing to Effective Practice

Themes	Categories
1. Self-Directed Practice [9]	- Unsolicited Participation - Taking Charge of Practice
2. Purposeful Practice [7]	- Planning Training Schedule [2] - Learning about Oneself [4] - Setting Daily Goal [3] - Questioning Given Program [2] - Positive Mindset for Practice [3] - Ending Practice with Satisfaction [4]
3. Quality Practice [9]	- Pushing Toward One's limit [7] - Expanding One's Limit [7] - Working Harder Than Others [6] - Practicing As If Competition [5] - Focusing [3]
4. Controlling Practice [9]: When Injured/ Fatigued/ Not in the Mood	- Lightening Workout - Shortening Workout - Moderating Intensity - Making a Sustained Effort to Complete Workout - Not Practicing At All

Note. Numbers in brackets indicate number of athletes who mentioned the themes and the categories.

Self-Directed Practice

A primary theme identified as a contributing factor to the execution of effective practice was self-directed practice. Self-directed practice was defined as practice driven by

the athlete's own desire and interest, rather than being driven by a sense of obligation or by the demands of a third party, such as coaches. The productivity of practice basically depended upon the degree of an athletes' enthusiasm toward practice. When athletes engaged in practice with a passive attitude, a sense of obligation, or due to pressure from third parties, the quality of practice and the benefit obtained was not as great as practice driven by the athletes' own desire and interest. Athletes learned, at some point in their careers, to either take charge of their overall practice on their own or to avoid a dependence on their coaches in order to fulfil their personal needs that were unique to each individual:

I'd simply been training as hard as I could within the scope of the given work-out until I graduated from university. But...I came to realize that it's not good enough just to work hard, blindly...So I began to give a bit of twist to a given work-out when it didn't fit with what I needed. (13:6a)

This unsolicited personal control in practice was found to be the underpinning of effective training, and will be seen to carry through the other three themes, as verified by various athletes' quotes.

Purposeful Practice

The second essential factor associated with effective training was that of purposeful practice. Purposeful practice was defined as engaging in practice with a full understanding of its purpose and with the benefit of concrete and/or systematic preparations that enhanced training effectiveness. One athlete described the ultimate purpose of practice as follows: "practice isn't for practice itself but for competition" (4:6), a view which was common to seven of the athletes who were studied.

All nine athletes reported various concrete strategies for making practice purposeful, and those strategies were grouped into six main categories: 1) planning schedules, 2) learning

about oneself, 3) questioning a given practice schedule, 4) setting a daily training goal, 5) creating a positive mindset prior to practice, and 6) ending practice with satisfaction. Each of the six strategies is illustrated in the following pages.

Planning schedules. The first category identified under the theme of purposeful practice was planning schedules. Two athletes mentioned an active involvement in planning training schedules to achieve consistent and effective training. One athlete referred to planning training as well as competition schedules on an annual basis for the purpose of optimal peaking, aimed at the main competition of the year. Another athlete reported using weekly training schedules which remained flexible depending upon the degree of his progress:

I consider what I must do at this particular period of time, or before a competition, or during off-seasons....The number of competitions I now participate in is limited. About four or five a year...So I usually plan my own training schedule to bring optimal peaks for those competitions. ..Make waves of low peaks and high peaks of the year. (13:6a)

First of all, I planned a schedule. A weekly schedule. And I did training according to this plan. It still remained flexible, though. If things were going as well as I planned, all I had to do was to keep going. If not going well, then I made some changes in the plan and went on. (22:5)

Although planning schedules helped athletes to be aware of the direction as well as the meaning of their training, and to keep things in perspective, the plans only provided athletes with medium or long-term goals. The athletes also draw upon knowledge about themselves to shape specific daily training goals.

Learning about oneself. The second category identified was that of learning about oneself. Four athletes talked about the importance of knowing, learning, or gaining knowledge about themselves. In order to have a higher quality of practice, athletes had to gain substantial self-knowledge or self-awareness that provided them with clear ideas of what

needed to be done to improve performance. Elements of the athletes' self-knowledge included strengths and weaknesses, physical, technical, and mental capacities, as well as personal style and patterns to date. For instance:

I was a very slow learner in terms of skill acquisition and I was very cautious, too. That's why I had to take many small steps before mastering a new skill. (22:6b)

In addition, one athlete from a combative sport mentioned that knowing himself was as important as or more important than knowing his opponents:

If you want to win, you've got to study yourself, your opponents, and techniques more than anybody...If you don't know about yourself, for example, your body size, length of arms, legs, thighs, you cannot know what techniques work well for you...Know yourself well before knowing your opponents. (6:4a)

The self-knowledge gained was implemented in practice as a form of daily training goals.

Setting a daily training goal. Three athletes mentioned setting daily training goals prior to practice. One of them emphasized the importance of setting one single goal a day, but not too many, to ensure training effectiveness:

Everyday when I walked into the gym I had a thing to work on in my mind. I said to myself: "I'm going to work on this today. Make sure I'll leave the gym after accomplishing it." You can't have too many goals a day. As a matter of fact, it's useless if you do so. That's why I set one goal only. (22:5a)

Although athletes preferred to have personalized training programs and goals, it was less feasible where training was given and fixed in a collective manner. In such cases of group programs, one way of enhancing training effectiveness was to assess the effectiveness of the training program in respect of individual needs.

Questioning a given practice schedule. The fourth category identified was that of questioning a given schedule. It was quite common that daily training programs and

instructions were given by coaches in a collective manner, particularly with school-based teams, despite a difference in the needs of the various athletes. In such cases, training programs might be of little value to each of the individual athletes. Two athletes reported the importance of questioning given training programs. Specifically, one athlete set out to practice only after comprehending the meaning of the given training program.

I didn't begin practice unless I understood the meaning of the work-out. I didn't like to say: "Yes, sir!" blindly to whatever my coach said...I first tried to understand how useful and how meaningful it was for me, and then did it. (4:6)

Another athlete learned to modify the given program if necessary, instead of blindly or rigidly following a common program:

...I started to question the training content. I came to realize that it's not good enough just to work as hard as I could...So I began to give a bit of twist to a given work-out when it didn't fit with what I needed. (13:6b)

Whereas the previous four categories: planning schedule, learning about oneself, setting a daily goal, and questioning a given practice schedule were related issues associated with goals at practice, another effective strategy identified was related to mental readiness for practice.

Creating a positive mindset prior to practice. Since most athletes did not find practice enjoyable, setting a positive frame of mind prior to practice became an important strategy for ensuring effective practice. Specifically, they tried to motivate or encourage themselves by the use of self-talk in order to get ready for an upcoming work-out:

I was saying to myself: "Okay, now I'm going to practice in order to be a champion!" I was telling myself that everyday before practice. Or "I'm going to try hard to be strong. I know I don't want to practice, but don't just walk away! Try hard! Hang in there!" (5:3a)

For me, to get up early in the morning was a big part of my training. I really hated it.

But of course I finally got out of my bed and headed for the training area. As a matter of fact, I still didn't want to go at that point. But as soon as I walked into the ground I said to myself: "I've got to do it." I shifted myself mentally and said: "No matter how badly I didn't want to come, here I am now anyway. So let's have a better practice than any other guys." (24:5)

Ending practice with satisfaction. The last category identified under the theme of purposeful practice was related to training evaluation. Asking oneself what had been accomplished today was one way of maintaining highly productive practices. In addition, reflecting upon a daily accomplishment allowed athletes to link today's practice to tomorrow. Four athletes reported that they made it a point to end their practice with a sense of satisfaction or accomplishment:

After the practice we did meditation every day...There was a written motto in our gym: "Win against yourself before against your opponents!"...So I looked at it and asked myself if I won against myself. If the answer was "Yes", that's fine. But if not, then I practiced on my own until I was satisfied with myself. (32:9a)

Purposeful practice was a combination of organizational or preparatory skills that became the foundation for quality practice. The next theme looks at how the athletes enhanced the quality of practice, which is a matter of content and intensity of the practice.

Quality Practice

Quality practice was defined as demonstrating highly productive training through the use of any concrete means to maintain high levels of intensity and focus. The present theme, quality practice, was identified based upon the insights of all nine athletes. As a whole, it became clear that athletes were strictly committed to quality practice: "I'd rather be working seriously with focus than working inefficiently...If you don't want to do it, just don't do it" (10:4). As well, athletes learned to focus on "more quality than quantity" (6:4), once having

reached a certain level.

Athletes reported various strategies that facilitated quality practice, and they were sorted into five categories: 1) pushing toward one's limit, 2) expanding one's limit, 3) working harder than others, 4) practicing as if being at a competition, and 5) focusing. Each of the five categories is discussed in the following pages.

Pushing toward one's limit. Seven athletes reported various examples of their efforts to push themselves toward their respective limits, naturally involving high levels of intensity. One athlete pointed out a relationship between the psychological limit and the physical limit:

Suppose the physical limit is 100 and it's often said that psychological limit is about 70% to 80% of physical. Perhaps top athletes are able to bring their psychological limit to 90% or 100% of the physical limit. (24:5)

The following quote from one athlete displayed the fact that one criteria athletes used in determining whether they had reached their limits during practice, was not the duration of practice, but the quality or intensity of the practice, making the most out of each practice session within a limited time frame:

It is a matter of how much you can drive yourself to the max within a limited time...I mean as long as you train with ease, you won't get any better. So the point is how much you can push yourself to the limit. To the maximum. If you cross the line, it's called overwork, though...To the max, but neither over nor under. I'm always trying to bring myself to the 100% line. (13:4-5)

Another criterion employed was associated with energy consumption in practice, specifically, the opposite of energy saving, striving not to complete a practice session with any energy left:

What was good about my practice was that the intensity was extremely high, from the beginning of the work-out...Suppose I knew we were going to train for two hours today. Then I thought: "It's okay if I'm down after an hour." Because it's useless to save your energy to keep up for two hours or to end practice with some energy left. (5:4)

Two athletes spoke about the importance of making an effort to push themselves toward their limits constantly on a day-to-day basis:

I think a repeated effort of pushing myself to the real limit on a day-to-day basis, more than anybody else, allowed me to excel to this level. (24:5)

In addition to "pushing toward their limits", endeavors were made to expand their limits.

Expanding one's limit. Although there was no clear distinction between pushing toward one's limit and expanding one's limit, athletes often attempted to break through what they perceived as their own limits. Seven athletes described specific examples of how they stretched and expanded their limit for the purpose of making further progress. In a practical sense, expansion of limit was exercised by adding extra workload or pressure to themselves. The methods described included, choosing training partners who were close to one's level or higher, setting small specific goals to break through difficult opponents or to master techniques, raising a level of goals when practicing with lower levels of opponents, not stopping moves throughout a practice session, giving one more push after being fatigued, and leading others under any circumstances. Some of the examples were:

The best thing is to throw guys 100 times an hour and not be thrown even once. The more you throw, the better it is. But it's no use to throw weak guys so many times. So I look for guys who are close to my level. Or when with tough guys, like ones I'm normally able to throw only once in a session, I try hard to make it twice or three times. I add an extra load on myself. (13:5)

When I did sparring with younger peers and found their levels way lower than mine, I decided myself that I had to beat them within 10 seconds after hearing a gong. If I fought with them under a normal condition, I could have beaten them too easily. But it didn't help me to improve. That's why I didn't forgive myself unless I beat them within 10 seconds. (32:10)

Usually people don't like to train against tough guys. But I often thought: "I'll go and

get {a world champion} [for the practice partner] first," or "I'm going to stay up to {a world champion} longer than anybody." And I tried to do so anyway, even though I didn't like it either. (24:5)

If a practice session were set for three hours, then I wouldn't stop moving for three hours...Usually people take a rest between sparring. But I did things like pattern exercises, sit-ups, stretching, studying techniques, and so on. I made maximum efforts not to stop moving till the time's over. (32:9)

I give myself a challenge and make one more push or two after being very tired. (8:4b)

Whenever I ran I had to finish first no matter how bad my physical shape was. Because I was always thinking: "In a real match I must do anything to win, even if I were not in good shape." (32:9)

Working harder than others. When the athletes' goal was to excel beyond all other competitors at their respective sports, other competitors became a standard by which to assess their work load. Six athletes reported an awareness that they had to work harder than anybody in order to excel beyond their competitors:

If you only practice as much as others do, you'll be just about as good as they are. I think it's common among top people's mind to work harder than others. (5:3-4)

When I did weight training I lifted as heavy weights as guys in a two heavier class. When other guys were chinning 25 times I did 30 or 40. When others were looking painful I tried to pretend looking cool....I always worked hard, and harder than other guys. (24:5)

While the strategies for enhancing the quality of practice as presented in the last three sections were less directly related to competitions, another method was aimed specifically at preparing for competitions.

Practicing as if being at a competition. Practicing as if being at a competition was reported by five athletes as one of the most effective and practical ways of preparing for competitions, which naturally enhanced the quality of practice. Athletes described a

simulation as an opportunity to practice or pre-experience what they would have to go through in a real competition, both physically and mentally. To elaborate, a simulation played three main roles in preparing athletes for a competition: 1) to prevent them from becoming nervous in competition, 2) to stay in control under difficult circumstances during competition, and 3) to become familiar with overall aspects of competition. For instance:

I try to create the atmosphere of competition in practice. Because if I do so, I won't have to get real tense, although I still might get uptight a bit at competitions. (8:3a)

When I wasn't in good shape at practice I always asked myself: "What if this were a competition?"...When you're in good shape, anybody can win. But the problem arises when you're not in good shape. You've got to keep the disaster to the minimum. (32: 8-9)

Creating the atmosphere of competition basically covers everything about the real match that you need to prepare for. Like tactical aspects of the match. I can fully practice the tactics by creating real-match like settings, too. (8:4)

The athletes also reported using various specific simulated scenarios with respect to physical, tactical, and mental preparation, which might include, creating a detailed image of a competition site, imagining a pressured situation, making oneself extremely excited and uptight right before beginning a performance, creating a situation of making a major upset at the last minute, reminding oneself to fight back when fatigued during performance, and making the intensity of performance during practice as high as that of competition by choosing challenging practice partners. The athletes' examples were as follows:

My knees knocked in fear during practice. I could imagine TV cameras shooting me now. There're 10,000 people watching me in the gym. A judge signalled me to start and turned on the blue light. A camera man came closer to me, things like that. Also, one of my teammates failed. If I fail now, it'll cost the team result. I must make it no matter what. I made up such scenarios in my mind...I was all scared in practice, thinking: "What if I fail on this one?" I built up these simulative experiences. I still felt scared in competitions, though. My knees knocked. My heart pounded so fast. But I said to myself: "I did succeed in practice no matter how fast my heart was

pounding. So I can do it this time, too." I began to think of that way. (22:3-4a)

It's a question of how many times you can pull out "the hidden energy of the emergency". It's impossible not to get uptight at competitions. It's impossible not to get excited, either. If so, why don't you make yourself excited and uptight during practice? (22:7)

I give myself a challenge and make one more push or two after being tired....Unless I do so, I'm afraid that my mental strength will get turned off when things get tough and exhaustive in a real match. (8:4b)

I always thought about the last five seconds. I imagined: "I'm now losing and I have to make a major upset in the last five seconds." I practiced a technique to deal with such a situation...and as a matter of fact, the miracle indeed happened. (32:11a)

I don't want to do practice as practice but as a real match. So I deliberately look for guys who are willing to give me a blow. (8:3)

While the previous four categories dealt with the intensity of athletes' practice, another aspect that influenced a quality of practice was a focus level.

Focusing. Three athletes mentioned the importance of focusing or concentrating in practice:

Not to think about anything...I mean to get rid of irrelevant thoughts, like the way of Buddha. Be absorbed in training... It's a matter of focus. (10:4)

In addition, one athlete pointed out that a focus level was usually influenced by the circumstances or times:

I sometimes find myself not focusing. It depends on the time or the situation I'm faced with, though...When there's no upcoming competition immediately at hand it's easier to loosen up and lose my focus. However, when a competition gets closer, all my attention is naturally pulled out together. (10:4)

Although elite athletes practiced with a high intensity and vigor, they also acknowledged the importance of listening to their own body and mind and moderating practice if necessary for enhancing practice efficiency.

Controlling Practice

The present category, controlling practice, was defined as selecting adequate training methods depending on one's daily physical and/or mental conditions as well as one's circumstance in terms of competition schedules. Issues related to controlling practice were discussed by all nine athletes. The athletes revealed that they constantly took daily physical and/or mental conditions into account during practice, particularly when the conditions were less than optimal. Specifically, the athletes made reference to three types of less than optimal conditions: 1) when injured (physical problem), 2) when fatigued or not in good shape (physical and/or mental problem), and 3) when not feeling like practicing or not being focused (mental problem). The following pages describe how athletes handled each of the three situations.

When injured. In a discussion of dealing with less than optimal conditions, one of the situations identified was that of being injured. Athletes (n=4) reported three main options to handling such a circumstance, including; focusing on training uninjured body parts, practicing while protecting the injured body part, and not practicing at all. Basically, a choice was made according to the degree of pain. Two athletes reported that even when the injuries hurt them quite severely, they still gave themselves exercises for other body parts without joining the regular team practice, weight training being one example:

When I had a pain I didn't join the team practice. But I trained other body parts by myself. For example, when my knee hurt I intensively trained the upper body. When my elbow hurt I trained the lower body. In that way, I got a sense of satisfaction that I did training. (6:6)

On the other hand, one athlete reported that not practicing at all was sometimes a necessary choice:

I wouldn't force myself when I have a pain. Resting properly is also an important aspect of practice. If it really hurts I won't practice at all. (10:5)

In addition, one athlete referred to a case of having a slight pain. He said that he joined the regular practice, but needed to protect the injured part:

If it were a slight pain, I would practice while protecting that part. (10:5)

It was obvious that having injuries was one of the most disturbing problems for athletes, interfering with their practice and plans, and often affecting physical and mental readiness for competitions. Besides injuries, however, there were other physical conditions, such as fatigue or stress, that influenced athletes' preparation for competitions. One athlete clarified however that: "Handling injuries and fatigue are the two separate issues" (8:4).

When fatigued or not in good shape. The second circumstance identified as being a less than optimal condition was feeling/being fatigued, stressed, or not in good shape. Three athletes mentioned that fatigue was closely related to age factors. For instance: "If you've been practicing so hard everyday, physical fatigue will constantly remain on the next day. It becomes more and more so as you get older. At the same time, it takes longer to take fatigue away" (13:5). Thus, taking fatigue factors into account became more essential as athletes grew older. Athletes (n=4) reported four options to handling such a circumstance, including making a sustained effort, lightening a workload, moderating intensity, and stopping practice. Each of the four coping strategies was characterized in the following quotes:

When I'm tired it can't be helped. But at least I try to hang in there by telling myself: "Hang on just for today." (10:5)

When I was feeling tired, I lightened the work-out. (5:5)

When I'm in bad shape I don't push myself too hard, especially when practicing with tough guys. It may be called "easing up" in a sense. But it's much better than being

too persistent and getting injured as a result. (13:6)

My career can be divided into halves. During the first half, I tackled fatigue like a hell. During the second half, I stopped. (6:6)

Aside from injuries and fatigue, the athletes sometimes also experienced motivational problems in regard to practice sessions.

When not feeling like practicing or not being focused. During many years of training, "there are certainly days where you don't feel like practicing," (4:6) or "days I couldn't get in the mood or my body just didn't want to move" (5:3). Although a lack of motivation appeared to be a psychological issue, some athletes felt that it was often connected to a physical matter; that was, energy level-age factors:

When I was younger...even when I didn't feel like practicing I managed to put myself into it, as the practice time went by. But as I get older there are more days I just can't. (8:3)

Eight athletes discussed how they approached practice sessions when they were not in the mood for practice. All eight reported that they would first attempt to raise their motivation, for instance: "I try to shake myself up anyway" (8:3). Athletes described specific strategies employed, and those were grouped into five types: 1) positive self-pep-talk, 2) finding motivating, stimulating, or challenging practice partners, such as those who were close to one's level, who were at higher levels, or who had a style that one had trouble with, 3) forcing oneself to be physically pumped up, 4) setting one small goal, and 5) reminding oneself of a past painful experience. Some of the examples were:

Of course I had days of not feeling like practicing....But I said to myself: "Don't turn your face away from it!" (5:3)

When I'm out of focus I try to motivate myself the best I can under the circumstance...For example, I practice with tough ones. Guys I can hardly throw or

who are difficult to throw. Because when I practice with weak guys I tend to get dull and sloppy. (10:4-5)

When I didn't feel like practicing I slapped my face, smack smack smack! After a while I've got a bloody nose. But I kept doing it until I set myself on fire...And when it came, I set off, "Go!". Both at practice and competitions. It's my way. I literally forced myself to pump up. (6:3-4)

I said to myself: "I'll go home only after accomplishing one thing. Just one. I can't do so many things. At this level of technique, I'm able to successfully execute it at least once out of five." Or if it were something that I couldn't make it even once, then I said to myself to at least catch the lead. (22:6a)

When I didn't feel like practicing or when I couldn't focus, I consciously looked at a scar that I got from my coach for not doing well in a competition. Then, it sparked my emotion. Miserable, shameful and desperate feelings revived in a flash. And then I said to myself: "This is wrong. I've got to do something." (4:6a)

"There are times of being able to get immersed in practice as naturally as the time goes by," (8:3) however, there were also times they just could not raise levels of mental energy. Under these circumstances, they took one of the following three options: stopping practice, making practice short, and continuing with practice. Five of the eight athletes reported that they would stop practice:

When I still couldn't set myself on fire, I quit. Because I'd hurt myself otherwise. (8:3)

There are times I couldn't be in it at all. Then I just went home and slept. I said to myself: "All right, I'll quit today. Once in a while there're days like this. I'm going to go home and get some sleep." After having a deep good sleep, I felt I was totally refreshed, and I was filled with a good motivation. (22:6).

Whereas the majority of the athletes stopped practice, three athletes took other alternatives, one made practice short, saying: "I make practice short and sweet, and leave" (10:3); or two others continued with practice, saying: "I didn't have a choice" (4:6).

In brief, the theme of controlling practice indicated that elite athletes learned to train

smart in order to maintain a better physical/mental conditions that allowed them to constantly deliver efficient practice, and thus to be better prepared for competitions. On the whole, when athletes were not in optimal shape, due to such diverse factors as injuries, fatigue, and motivational problems, they basically had five options to chose from: lightening the work-out, shortening the work-out, moderating intensity, making a sustained effort to complete the work-out, or not practicing at all.

In summary, in examining the topic related to mental approaches to practice, four main factors that contributed to the execution of effective practice were identified, including self-directed practice, purposeful practice, quality practice, and controlling practice. Athletes' active commitment to practice was found to be the foundation of effective practice, inasmuch as fulfilling purposeful practice, quality practice, and controlling practice was virtually not otherwise possible. Athletes helped themselves to make their practice purposeful by following a thorough preparation system. Athletes employed various strategies to ensure highly intensive and productive practice. Although the intensity of practice was extremely high, controlling practice was also an important task in order to maintain training efficiency. To do that, athletes took daily physical and mental conditions into account, and selected the best practice method under the circumstances.

While the present section has determined the factors contributing to effective daily practice, the next section examines factors related to successful performance at competition.

Mental Approaches to Competitions

This section presents those factors discriminating successful performances from less successful ones with regard to mental preparation for competitions. The factors were

identified based mainly upon athletes' responses to questions concerning mental approaches to competitions (see Appendix B). A comparison of successful competitions and less successful ones allowed the researcher to determine discriminating factors that were likely to influence performance outcome. As a result of a comparative analysis, eight discriminating factors were found, including: 1) winning determination, 2) confidence, 3) mindset, 4) focus, 5) dealing with mental blocks, 6) preparation processes, 7) mental readiness, and 8) post-competition evaluation. Each of the eight mental factors is discussed in the following pages. A summary of mental factors separating successful performance from poor ones may be referred to in Table 9.

Table 9
Mental Factors Discriminating Successful Performance from Poor Performance

FACTORS	SUCCESSFUL	POOR
Determination to Win [6]	High	Low
Confidence [9]	High	None/ Low/ Over
Mindset [8]	Positive/ Intense/ Aggressive	Negative/Passive
Focus [6]	Full	None (Distracted)
Mental Readiness [6]	Full	None/ Low
Mental Blocks [8]	Under Control	Not Controlled
Preparation [9]	Sufficient/ Proper	Insufficient/ Improper
.....		
Post-Competition Evaluation [5]	Done	Not Done

Note. [] = Number of athletes who mentioned this factor.

Winning Determination

Winning determination referred to a frame of mind in which the athlete was highly determined, committed, or motivated to win at a certain competition. Six athletes reported a difference in their determination to win between successful and less successful competitions. In explaining this determination, they touched upon three issues, including the degree of determination, the influence of determination on their behavior, and factors influencing the degree of determination.

First, with respect to the degrees of determination, some athletes (n=4) recalled that when they were successful they were highly determined and "possessed an 'I will win no matter what' kind of attitude," (32:17). Six athletes reported that a lack of commitment to the competition or to winning was one of the main causes that led poor performances, at whatever level of competition:

Quite frankly, I didn't care about this competition so much. (10:11)

If I compare bad ones to good ones, I wasn't committed to the match with all my heart and soul. (4:11)

The degree of determination to win was reflected in everyday behaviors. Athletes' determination to win influenced their everything in their lives, living habits, degree of dedication to daily practice, and quality of preparation for competition. Three athletes reported that, during preparation for successful competitions, a high level of determination was demonstrated in their dedicated preparation and their willingness to sacrifice other aspects of their lives and/or other competitions for the sake of winning a particular competition:

At that time I hadn't won the national title yet...But I had already won the Olympics. So I thought: "It's Okay even if I can't make the Olympic team next year [because of an injury]. Forget about it...Even if my leg is ripped off during the match, I still want

to win this title!" That level of determination. (6:2)

If it were the once-in-a-lifetime match, I wouldn't bother myself taking school exams that interfered with my preparation for competition. I didn't even care about failing to move up to the next grade for a couple of years. I thought: "I don't know how long we as human beings can live, 70-80 years perhaps. But this is the most important event in my entire life." (4:11)

I started preparing for the [best] competition much earlier. As soon as I began weight control I devoted everything in my life to the competition. All my heart and soul was in it. (5:9a)

As well, some athletes revealed that a commitment to winning, perhaps rooted in a subconscious level, helped them find energy in critical circumstances during competitions:

I believed: "Even under the worst circumstance, there must be a way out for the victory." I thought: "God must be testing me to see how I overcome this critical circumstance." ...So I was rather motivated to take up the challenge. (8:6a)

In contrast, when recalling poor competitions, four athletes listed behaviors that indicated a lack of commitment to winning:

If you are thinking that way [that you have already become a champion] while approaching the competition, life becomes lousy. I was having quite a bit of alcohol at that time, too. (5:11)

I wasn't practicing so much at that time and I wasn't preparing for the competition at all. Neither physically nor mentally. (10:11a)

Athletes mentioned several factors that influenced their degree of their determination, either positively or negatively. Five athletes reported that, upon successfully completing competitions, they were motivated and eager to win major titles, such as the Olympics, the world championship, or the national championship, which they had not yet attained. Further, two athletes pointed out the difference in the intensity of determination to win before and after having attained a particular title:

There's a difference in the intensity of determination between when you're challenging

to win the world title for the first time and really determined to become a champion at any cost, and when you are approaching a competition thinking that you have already won the championship. (5:11)

As well, a unique factor was identified that enhanced determination, namely an athlete's decision to retire after an upcoming competition. Three athletes, discussing their best-ever performance, which occurred at the Olympics, stated that they had decided to retire afterward. Although the reality was that one of them went on competing, and another made a comeback after retiring, their decisions about retirement helped intensify their motivation to win at those competitions:

I was always saying to myself: "This is the last ever competition in my career. I'm going to retire after this. And I want to end my career beautifully. I've been sacrificing everything for this competition." (5:9)

It was likely human nature that athletes should wish to round off their careers with a successful and desirable outcome in their last-ever competition. At the same time, their last-ever competition was often considered an opportunity to demonstrate the results of years of accumulated training and experience. Hence, when athletes were not content with the outcome, some of them reconsidered their decisions about retirement. For example, one athlete looked back on his less than successful Olympic experience, and said: "Since I lost, although I was favored to win, I changed my mind not to quit" (10:8).

In the case of less successful performances, four athletes reported factors that lessened the degrees of determination to win, including life stress, such as injuries and life changes; and loss of motivation in general, such as loss of a goal and/or eagerness to be a champion:

It's probably because of my neck injury. Yet the "I'll win no matter what" attitude was missing. (32:17)

That was the time when I started to be in a workplace for the first time...I began to learn various things about life and I couldn't focus on {sport} so much. (10:11)

Between the good one and the bad one, {an athlete} retired. I was pushing myself so hard to break through this huge wall called {an athlete} for a long time. And finally when he became a target within my range, he retired and my goal was gone. Everything seemed to be falling apart. I had really boring matches at the worlds trials, too. I realized how much such mental things could affect my performance. (6:12)

On the whole, athletes' reports indicated that a desire or a commitment to winning was one of the main factors contributing to a successful performance. Athletes also revealed that the degree of determination directly influenced the quality of preparation for a competition. If so, maintaining a high level of commitment throughout the long-term course of preparation was essential. Obviously, however, the degree of commitment was not the same for every competition athletes participated in; the degree of commitment was higher for the higher levels of competitions, thus, the higher quality of preparation. As one athlete stated:

You can't do the same preparation for every competition. There are different levels of competitions; one that comes only once in a lifetime, ones that come once in two years, and ones that come every year. If you treat all of these in the same way, you'll never have time to graduate from school. (4:11)

However, it should be noted that winning was not commonly in athletes' conscious mind prior to successful performances, although determination to win was there and occasionally helped them over critical circumstances during competitions. In fact, thinking of winning prior to performing often led to poor outcomes; more details are discussed in a later section. Ultimately, the degree of determination to win corresponded to the perceived importance of winning at a particular competition. At successful competitions, winning a title was tremendously important for athletes, and had a significant meaning or value in their lives.

Conversely, when they had performed poorly, athletes identified a lack or loss of interest in winning.

Confidence

Confidence was defined as a psychological state of believing in or being or feeling certain about one's ability and one's chance of winning or performing well. Issues related to confidence were discussed by all nine athletes, and included two main aspects: levels of confidence, and sources that influenced levels of confidence.

First, a confident state could be broken down into three main dimensions: high confidence, low confidence, and over-confidence. Five athletes recalled that they had been highly or fully confident of winning before their best performances. Full confidence or high confidence referred to a psychological state of being fully or highly but not overly confident of one's ability to win and/or perform well, that subsequently helped one perform to one's best. Two examples of a highly confident state were:

I felt I could beat anybody...or nobody could get in my way at all. (6:10)

All the way through the event, I was so certain that I would win. (13:14)

In contrast to the case of successful competitions, three athletes recalled that their confidence level was low or absent when they performed poorly. Low confidence referred to a lack of belief in one's ability to win and/or perform well, that subsequently prevented one from performing to one's best. Low confidence often manifested in the form of doubts and/or worries:

I had a huge worry from the fact that I hadn't been pushing myself 100% in training...Aside from a worry about that particular competition in general, I was more concerned about myself not being trained. I mean I'm a guy who always pushes myself to the max in training. But as a matter of fact, I couldn't [due to injuries].

Then, how could I help worrying? (13:16a)

In addition to low confidence, four athletes reported that poor performance was also attributable to over-confidence. Over-confidence referred to a psychological state in which one was conceited or excessively confident in one's ability to win and/or perform well. Although there was only a fine line between full confidence and over-confidence, over-confidence led athletes to take winning for granted and to fail to make efforts to perform at their best or to make a win happen:

When my opponent was way below my level...I started to think something like: "Win it without spending too much energy." In that case, it usually became a close fight till the end, or worse. (32:17)

Athletes discussed some factors that influenced their level of confidence at competitions. For successful competitions, they reported that two factors had facilitated full confidence: having a good start, and sufficient practice or preparation. In the former case, two athletes from combative sports reported that they felt a total belief in their ability to win after a good performance in the very first match:

I did really well in the first match. Then I thought: "This title is going to be mine." I sort of had a belief that everything would go well if I had a good start...So at the point when I finished the first match, I became so sure that I would win. Absolutely no doubt. (5:10)

In the latter case, three athletes reported that full confidence was mostly attributable to sufficient preparation:

I was totally satisfied with the whole training I had been doing. Things were perfectly finished up. It couldn't be better than that. So I was fully confident, too. (24:13a)

The correlation between extent of practice and confidence levels was also became evident when discussing less successful performances. When preparation for a competition

was insufficient or inadequate, athletes often showed signs of low confidence. In many cases, low confidence was primarily attributable to injuries, leading to insufficient training:

I had no confidence in myself because I didn't have enough practice, not to the extent that I could be happy with it...I think it was because of my injury. But of course, I still had to compete whether or not my practice had been sufficient. (22:15)

I was so worried, because I was preoccupied with the idea that I was lacking in training throughout the year. (13:16a)

Two sources of over-confidence were also mentioned. One was excessive pride in being a world-class champion, and the other was past experiences of not being challenged. Three athletes stated that the fact that they were already champions prevented them from making maximum efforts. One athlete simply said: "Pride of being a champion was walking alone" (24:13).

Two athletes from combative sports said that past successes with opponents, whether at practice or competitions, had made them underestimate their opponents' ability or overestimate their own ability and chances of winning:

What I was thinking was: "The Asian championship is going to be an easy victory," because I had won the worlds the year before. Also I had already fought with the guys and I had never been contested. (10:11)

To some extent I was making light of my opponent in the first match. Because I had never lost any points to him during practices. (24:13)

In summary, confident states were divided into three main dimensions: high confidence, low confidence, and over-confidence. A high level of confidence was identified as one of the contributing factors to successful performance. In contrast, both low confidence and over-confidence created a hinderance to performing at one's best. Extent of preparation or past practice was found to be the main determinant of athletes' confidence levels at

competitions.

Mindset

Mindset referred to one's orientation, attitude or perspective towards the performance and the final outcome. Issues related to mindset were discussed by eight athletes. In comparing successful and less successful competitions, mindset was very different. That is; athletes carried a positive or aggressive attitude when they performed successfully; and conversely, a negative or passive attitude when they performed poorly. Seven athletes reported being positive, and mentally aggressive or intense at their successful competitions. Of these, three recalled that they stayed extremely positive even under difficult circumstances, such as when competing with an injury, and competing against the previous Olympic champion:

I had no idea what moves I should make to win. Because of the leg injury, I wouldn't be able to seize the offensive by myself. So I couldn't imagine how the match was going to go at all. Then I thought: "Anyway, challenge your opponent with all your heart and soul. Chance will come at least once during five minutes of the match...Never complain about pain, and keep cool. Look your opponent right in the face and challenge him with your head held high." (4:9)

I was absolutely, positive. I was mentally aggressive. My opponent in the final was the {last Olympic} champion. Normally guys would get cold feet from that, but what I thought was totally the opposite, like: "What a perfect opponent!" (24:8)

Furthermore, one athlete believed that a positive or aggressive attitude could compensate for his physical disadvantage:

I got injured...but I thought before the final: "I can fight with this guy by making myself mentally intense and aggressive to the max." (4:9)

Positive expectations sometimes appeared in the form of winning imagery, reported by three athletes:

I totally decided by myself that I would win. Then, "I will win" stuff started spreading all over. Like even when I was running a track I heard the echo of the victory interview, somebody telling me: "Congratulation for your gold medal!" (22:9)

Three athletes reported that a habitual winning attitude allowed them to perform consistently, and thus to be constant winners:

I'm always thinking that I'm going to win no matter what. I mean I know right away whether or not I'm in good shape today. But basically my attitude is: "I'm going to win no matter what, whether or not I'm in best shape." It's one of my strengths that leads me to victories. (8:8)

At their less successful competitions, four athletes recalled not having the right mindset, being negative or passive either during the competition or in the days leading up to it:

Whether or not I'd prepared well, a common thought I had before competing whenever I didn't do well was: "I want to run away." (22:15)

For the first time, I thought: "I want to go home", during the competition...I never had such a feeling before. Normally a competition was over before I'd even realize it. But this time I was thinking: "I want to go home now. I hope this'll be over soon. Let me get out of here, please." (22:15)

I think I had a passive attitude toward that competition. Because I was convinced by myself to some extent that: "Anyway I've retired once and started all over again." Indeed, it was partially not my decision to come back. (5:11)

We must be on a diet to participate in a competition. And when I wasn't doing well, I was particularly concerned about my weight. Like: "What can I do if it doesn't go down today?" (5:10)

In competitions with successful outcomes, the athletes had managed to stay in a positive frame of mind even under undesirable circumstances, whereas in cases of competitions with poor outcomes, they lost their positive attitude and didn't deal well with negativity:

[Between matches] I was thinking: "I'm in bad shape. I feel so sluggish. I feel so dull. I'm in bad shape today." (5:10)

Three athletes believed that a passive attitude during performance caused defeat:

After I took points, somehow I started thinking: "I'd better be defensive." A passive attitude came out of me, like: "Defend and hold on to the points." (13:10)

I was very careful and very cautious. That was the mistake and turned out to be a defeat...I was thinking: "It's better to be on the defensive while looking confident than to make unnecessary attacks and take a chance of getting counter attacks." (4:11)

In brief, the results indicated that a positive mindset was consistently exhibited when athletes performed with success. In contrast, during poor performances, athletes were controlled by negative or counterproductive thoughts.

Focus

Focus refers to a cognitive state of being connected to a task at hand, in the moment, and being disconnected or being free from any irrelevant thoughts. In comparing successful and less successful competitions, six athletes reported a difference in their state of focus. They discussed a focused state mostly in relation to distractions. Specifically, three athletes recalled that immediately before or during successful performances they had achieved a state of mind totally free from any distractions or irrelevant thoughts:

It's a matter of whether or not such irrelevant thoughts are in your mind right at the moment the match is about to begin. Nothing is in your conscious mind when it's at its best. An empty state. It's difficult to describe the state of emptiness....I don't know if it's called focus, or you can describe it in many ways. But that happened when I was detached from everything around the world...Don't think about how to win or calling your girlfriend after the match. (32:18)

As soon as the competition began, I forgot about everything, even about ranking, and was performing detachedly. (22:14a)

On the other hand, when describing less successful performances, four athletes reported that irrelevant thoughts were present. They mentioned thinking of the crowd, appearances, interviews, or feeling obligated to win, instead of thinking about doing their best in the task at hand:

My focus wasn't on the match...Actually I was stunned by the audience, cheering for the {opponent}...What I was thinking right before the match was: "What the hell is with this audience!" (8:12)

When I had irrelevant thoughts before a match I usually didn't win. For example, when I was thinking: "Let's look pretty to win," or "Let's win by {technique}," or "What am I going to say later in the interview?," it was either a close match or a losing match. (32:17)

I lost soon after I had become the national champion. At this time I was thinking that I couldn't lose [at the collegiate level] because I was the national champion. (4:11)

When discussing a focused state, in addition to talking about distractions, some athletes also touched upon other issues, such as performance automaticity and attentional styles. One athlete spoke of the notion of automaticity in executing techniques:

When I'm grappling with my opponent I don't have any consciousness. It's sort of like somebody in me but not entirely myself is performing. I'm not conscious when I execute techniques. Technique goes by itself without me thinking of it. (8:10)

Another athlete referred to attentional styles in explaining his interpretation of focusing. He defined focusing, particularly with regard to competition-settings, as sensitizing all his nerves to the extent he could observe everything that was happening around him. In his own words:

You must get the best out of what you have done during five minutes on a given day. To do so, to give you an example, it's like drawing a bow. Strain a bow to the max. Sensitize all your nerves so that you can read everything that is going on around you. (4:12)

In brief, the results indicated that successful performance was accomplished with a full focus, in other words, with an absence of irrelevant thoughts. In contrast, a loss of focus was found to be one of the causes that contributed to poor performance. However, a state of full focus could be regained if an effective coping strategy was undertaken, which is discussed in the following pages.

Dealing with Mental Blocks

Mental blocks referred to the loss of psychological states associated with successful performance (determination, confidence, full focus, positive mindset, & readiness). These blocks were normally caused by distractions, which kept one from performing at one's best under the specific circumstances. Eight athletes shared their experiences relating to mental blocks, sources of mental blocks and their coping strategies.

Diverting attention away from a performance or task relevant focus was one of the main factors blocking good performances:

My ears were catching every word announced in the arena, and I was so easily distracted by people around me. There was no feeling of intensity. I think my focus was here and there, everywhere. (13:15)

Table 10.
A Summary of Sources of Mental Blocks and Coping Methods

Sources of Mental Blocks

- 1) Disrupted Attention or Focus
- 2) Negative thinking, feelings or reactions

Coping Methods

- 1) Elimination of Foreseen/Predictable Potential Distractions
 - a) Planning coping strategies
 - b) Getting acquainted with competition site
 - c) Distinguishing controllable problems from uncontrollable
 - d) Paying attention to safety
 - e) Management of personal belongings
 - 2) Elimination of Unforeseen Distractions
 - a) Shifting negative perspective to the positive
 - b) Refocusing on task
 - c) Reminding oneself of learned readiness
 - d) Reminding oneself of others' support
 - e) Positive diversion
-
-

Another major source of mental blocks was negative thinking, feelings or emotions (e.g., self-doubt, worries, fear, nervousness, confusion, wandering thoughts, hesitation, passivity, a sense of pressure, or feeling out of control) or negative reactions to distractions (e.g., injuries, self-expectations, others' expectations, making mistakes, a presence of a crowd, team mood, unfair officiating, unforeseen happenings, or setbacks). The following pages display some of the sources of mental blocks discussed.

Pressure was one of the issues most often discussed with respect to sources of mental blocks (n=6). In general, pressures emerged in athletes' conscious minds when they felt overwhelmed by others' and/or their own expectations of victory, causing a feeling of responsibility or obligation to win, and ultimately a fear of failure. Fear of failure often stemmed either from the fact that they were world-class champions and/or national champions, or from the fact that they experienced losses in the past. This could lead to a fear of others' criticism or humiliation, or to insecurity about one's future career:

When I was younger, I got so nervous when I went to international competitions, being a representative of my country. Because if I lost, everybody would say that Japan was defeated. (4:9)

It was the world championship after losing at {the world championship} and {the Olympics}. Normally, if you lose twice, you can't go to the worlds...I mean people start thinking: "You are no longer good enough." The media had written all kinds of good things about me before I lost. But at the point I lost twice in the worlds, they became so hard on me. For example, they asked me a so insensitive question right before a match, like: "People are saying that you are not good enough any longer. What do you think about what that?" Anyway that was why it was my third challenge, and I was thinking: "If I lose this one, it's going to be very difficult to make a comeback." I was literally feeling I was standing on the edge of a cliff. (8:11b)

Types of pressures experienced at international competitions differed slightly from those at national competitions. At the international competitions, the athletes tended to feel

that winning was their duty for the sake of country or of national pride. At the national competitions, they tended to feel obligated to win for the sake of their own pride. Athletes sometimes felt stronger pressures at the international competition than at the national competitions, and sometimes vice versa. Some examples of perceived pressures experienced at international competitions were:

...the world championships. It was the first international competition that I participated at the seniors' level. I was quite sure that I would win, and people also considered me a favorite. There was so much pressure on me and I didn't win...I used to think: "I must win for my country," when I was younger and I was totally out of control. (8:9)

Because I won at {the Olympics} already, everybody expected me to get gold again at {the Olympics} despite insufficient training. (24:11)

The following example illustrates the pressure, experienced at the national level from feeling obligated to win to prove one's competence:

Not only myself, but also people in general thought that a guy who became the "No.1" in the world had to be the "No.1" at home, too. It's very hard to win at a competition that you are supposed to win. When I went abroad I was thinking: "Just go for it." As a result, I was performing nice and easy. But at the national level, I was performing defensively, particularly in my days as champion. So my performance lacked fluidity or I almost made careless mistakes. (22:12)

In relation to the topic of pressures, seven athletes reported that the Olympic games were generally the most pressured or the most frightening competition in their careers:

To tell you the truth, the Olympics was the one that scared me more than any other competition....To check my physical condition, I got on the scale everyday. And I was losing about one kilo everyday, no matter how much I ate, including ice cream, in the morning. (4:7)

Because the Olympics was my ultimate goal, I was putting extra pressure on myself about winning. (13:13)

I was so frightened and it couldn't be helped...It's often said that the Olympics have an evil spirit. And I think I experienced it through my skin. (6:7)

Athletes also reported other sources of mental blocks. Some recalled external distractions, such as a crowd or the team mood, negatively influencing their performances:

One of our teammates had lost his match. And he was my care-taker. I guess he was trying to motivate me, saying: "Let's go, go!". As a matter of fact, however, he was looking so down. I think it was one of the negative causes, too. (5:10)

There was a weird mood in the {Olympic} arena. I mean a very strong anti-Japanese sentiment was obviously there. The crowd was hissing at Japanese athletes so badly. And I was totally blown away already [three days before my match]. (13:15)

One athlete made an interesting point to the effect that anything could cause psychological barriers in competitions. He described his experience of coming to believe that he would win no matter what, after which he began to fear over-confidence-- in effect, worrying about not having any worry:

Before the final I pictured the match one more time in my mind....But believe or not, I couldn't find any reason for losing no matter how many possible patterns I went through....I no longer had anything to worry about! Then, I heard another inner voice telling me: "Wait a minute! This is the final of the world championships...Nobody has ever won two titles in a same championship before. Your opponent is the European champion...Aren't you underestimating his ability? Aren't you kidding yourself?" All of sudden, I became nervous. I was doing so well and when I came to believe that I had the greatest chance of winning no matter what, I started thinking: "Is it okay to think like that? Aren't you off your guard?" I mean I started to worry about not having any worry! (4:8a)

Having described some sources of mental blocks, it should be noted that the primary distractions did not necessarily have a direct negative impact on athletes' performance. Whether or not athletes handled them positively made a significant difference in the performance outcomes. To contrast successful and unsuccessful cases of coping with distractions:

I was ashamed of the injury [that happened during competition]. But I was thinking: "Even under the circumstances I could go and fight for the final by being mentally prepared by making myself intense to the max." (4:9a)

Since I got injured [two days prior to the match], I got so anxious about it even though it wasn't such a big deal. I still think that I should have or could have done something with this worry stuff. I think that the result could have been different if I had a "it doesn't matter" attitude. (13:9a)

As shown above, ultimately, the dividing line between successful and less successful performances in the face of distractions depended on how well one redirected one's attention to the task at hand, and handled negative feelings and thoughts.

Coping basically involved elimination of mental blocks. Specifically, it included two types of action: eliminating potential distractions, and eliminating unforeseen distractions. In terms of eliminating potential distractions, the athletes reported five types of strategies: 1) planning coping strategies, 2) getting acquainted with facilities and equipment at a competition site, 3) distinguishing controllable problems from that which was uncontrollable, 4) paying attention to the safety, and 5) managing personal belongings. First, some athletes mentioned planning coping strategies in advance for predictable or potential distractions, in order to avoid encountering unnecessary hinderances. For instance, one athlete planned a strategy the night before a competition to keep himself from becoming nervous immediately before a performance when faced with the crowds' cheering for his opponent:

Your name is called and you step out into the shower of the crowd's scream, from behind the curtain...And I didn't want to lose my cool at this moment. So what I thought the night before the final was...that my grandpa would be the barometer of my nervousness. He was in a wheelchair. Usually these people were allowed to sit at the front. So I said to myself: "If I can see my grandpa when I step out onto the mat, I'm not nervous."...In fact, I could see him clearly, and I thought: "Everything is going to be just fine." (32:14a)

Second, another way of eliminating potential problems was by getting acquainted with the competition site. One athlete reported that his first task upon arrival on the competition site was to check up on the arena:

First of all, when I arrived at the gym...I sat down in an audience seat and looked around the whole gym. And once I captured the whole picture of the gym, then I went down to the actual stage. I checked out where I would be, where the judges would be, where I would start my routine, and so forth. (22:11a)

Third, an athlete also reported that checking on the lighting and equipment to find potential problems, specifically to distinguish those that were controllable from those that were not, helped him to be well prepared:

I checked on the lighting, too. "It's too bright here. But there is nothing I can do about it. So just keep it in mind."...There are things that I can control and I can't. For example, if the bar were slippery, you simply have to fix it to make it not slippery...This is what you can control. On the other hand, if the bar were too hard or too soft, that's something you can't control. Then you must adjust yourself to the equipment. (22:11)

Fourth, attention was also paid to avoiding potential accidents. Athletes' safety was under their control:

First of all, I tried to avoid unnecessary accidents or danger. For example, while heading to the arena, I wore shoes instead of sandals, so as not to injure my toes. (32:16)

Fifth, management of personal belongings was a part of their responsibility. Some recalled carefully preparing their baggage to ensure that everything they needed was with them:

I made sure to be well prepared. Like checking if I had everything necessary for competing...Because you don't want to worry about stuff like that. (24:8)

While some distractions were predictable, some were not. When unforeseen incidents came up, it became critical, particularly on the day of competition, to deal with the situation immediately and to get back in control as quickly as possible. Although the coping strategies reported were unique to each of the individuals, as well as to the situations, five main types of strategies upon dealing with unforeseen events were identified: 1) shifting negative

perspectives to positive, 2) refocusing on the task, 3) reminding oneself of learned readiness, 4) reminding oneself of others' support, and 5) positive diversion.

Athletes mentioned various examples of shifting negative thoughts to positive as one way of coping:

Always positive thinking. Even when I had things worrisome, I still told myself: "I'm in good shape." Once the positive became shaky, there you go, defeat came...Two boxers often say to each other before a fight: "I'm going to win by KO." I think we need this kind of attitude. By saying these things to people, I was actually trying to convince myself. Like self-hypnosis. You must direct your thought to the positive. (24:9)

To more specifically illustrate their strategies, upon dealing with nervousness or worries on site, athletes talked to themselves in ways that allowed them to accept what was happening, to enhance their belief, motivation and courage, to confirm the meaning of being there, and to control their emotions:

I think the fact that I could turn a negative thing to a positive was a big factor in my victory...One thing you can do to deal with your nervousness is to think: "It's normal to get nervous." Because the nervousness is an attribute of your determination that you desperately want to win, and having been working so hard for that. (4:9)

I try not to think about anything negative. And I build up confidence to the extent that all worries vanish...It's almost like self-hypnosis. I talk to myself: "I will win. I will win for sure." (8:7)

I believed: "Even under the worst circumstance, there must be a way out for the victory." I thought: "God must be testing me to see how I overcome this critical circumstance."...So I was rather motivated to take up the challenge. (8:6b)

...when I got nervous or felt choked or felt like running away from the site, I heard another inner voice whispering to me: "Hey you! Would you prefer to stay home and watch the world championship sadly on TV to cheer other Japanese athletes?" or "Did you want to be disqualified for the national championship and be part of the crowd, instead? Is that what you wanted?"...Then: "No, it's not! I've been training so hard for this competition and it's me who wanted it so badly." Then all of sudden, all negative feelings were blown away. (4:9-10)

I could control myself even in a critical situation by talking to myself: "Be patient just for the moment. I must be." (8:11)

When dealing with perceived pressure caused by others' expectations and/or self-expectations, athletes also shifted such negative feelings and thoughts to the positive by telling themselves to do it for themselves, to enjoy others' expectations, to focus only on the task at hand, and to believe themselves capable of winning:

When you go to the Olympics or that level of competitions, it's so easy to get trapped by an idea that you are doing it for your country. It's a great deal of pressure. It's often said that you can't go home if you lose. But as a matter of fact, although I was getting a lot of support from others for sure, it's me who had been doing all the work to get there. I think if you perform for yourself, then a good result will come out by itself. (8:8-9)

I tried to take people's expectations positively. Like: "Cool! Everyone is watching me." (24:10)

Just thinking of the task at hand. That's it. (22:12)

I kept telling myself: "I can win for sure." (8:11)

A second type of coping involved refocusing, or shifting thoughts back to the task at hand:

[When I felt pressure] I thought only about routine in order not to make mistakes. (22:12)

One athlete reported that he was not able to refocus at his less successful competitions:

Normally I could draw the line between the last event and the next event, even if I made mistakes. I told myself: "It's over, anyway." But at the [worst] competitions, I couldn't, and I dwelt on my mistakes. (22:15a)

Winning, particularly at major international competitions, was the ultimate goal of competing for most of the elite athletes. In situations where the chance of winning gold was completely shattered, yet they had to perform for a consolation, refocusing attention on the

next performance became critical to obtain the best possible result:

When I lost [in the third round] at the {Olympics}, I first became really pessimistic about the whole competition, thinking: "What was the training I've been through up to today for? What for?..." Because I was thinking only of gold, I thought: "It's really nothing if I get bronze." But after a while resting in a room and recovering from fatigue, I had a second thought, that such an attitude wasn't right. So I began to deny such an attitude: "No, no! I shouldn't be thinking this way!" It meant that I had to reset my goal...Although I didn't have as much energy as when I was going for gold, I started thinking: "It's my job to at least get bronze," and "I want a medal for myself." So I refocused and tried to fight back. (13:11-12)

Even when unpredictable or unfavorable incidents occurred, some athletes were still able to get back on track by reminding themselves of their philosophy, best attitude, and/or focus. "Being prepared to handle anything" was the universal coping strategy. This perspective of "readiness" or "being prepared for anything" was acquired learned, and developed through experience and drawn upon when necessary, rather than occurring by chance:

I have a philosophy that we never know what will happen in competition, and I shouldn't give up even when something bad happens. It's so easy to give up. But if you give up, you are already defeated by yourself, even before competition begins. I hate to see myself being like that. That's why I never give up. (8:6)

Even when I realize during a fight that things are going against me...I have a philosophy: "Offence is the best way of defence." So I keep attacking and never think of losing. (10:9)

I was prepared for the worst situations...So even if the worst situation arose, I thought: "Well, I'm in trouble. But I've got no choice except to just do it." So I simply tried to refocus. (24:13)

Knowing that indecision, wandering or hesitation could hinder his performance, one athlete consciously avoided such behaviors in his daily living, particularly on the day of competition:

I tried to avoid hesitation in doing anything. Even at breakfast to decide either coffee or tea. Which one do I choose? I chose a thing with my first instinct...So in the morning on the day of competition I have a bunch of choices. Let's say: "Rice or

bread? I prefer rice today. Let's have rice." It's the habit I deliberately formed not to wander. (22:10-11)

Receiving the support of others also helped some athletes enter a positive mindset:

I received a Japanese flag filled with messages from the people of my home town [before the Olympics]. Because I was the first Olympian from my town, they came to the airport packed in three buses...When I saw the flag, I thought: "I've got to do something." (32:14)

The night before the final, I knew everything that would happen tomorrow, like what time it was going to be, who my opponent would be, where the crowds would be, how the crowds were going to be. I saw the crowds going crazy for {opponent's country} when I was watching some of my teammates' matches. So I knew that the same thing would happen to me. Many of the Japanese were beaten at the final because of this. Then I became so nervous that I couldn't fall a sleep. I started wandering: "I know all I have to do is to get the best out of what I have. But still I must win." I was literally of two minds. Then, I started reading a letter of encouragement received from our coach, saying what the Olympics is all about...It helped a lot to cool down my nervousness. (32:13)

Lastly, a strategy of positive diversion or refreshing one's mind tended to be used during the days prior to a competition. For instance:

Instead of shutting myself up in a room, I walked around the Olympic village and chatted with people as much as possible....Because I became so nervous when I was alone. (32:14)

In brief, in examining mental blocks that the athletes experienced during days leading up to a competition day, various sources of mental blocks and a variety of coping strategies were described. Basically, the sources of mental blocks included: disrupted attention and negative psychological reactions to distractions. These two were not necessarily independent, in that negative reactions usually took away athletes' best focus. Although athletes discussed various types of coping strategies, including the elimination of predictable or unforeseen distractions, their efforts generally centered on stopping a negative mindset or creating positive mindset, and taking control of their focus. In the process of coping, a great deal of

self-talk was involved. On the whole, given the existence of numerous potential distractions, the ability to control such distractions, rather than being controlled by them, separated success from failure. Hence, successfully dealing with potential psychological blocks produced consistency in athletes' performance.

Preparation Processes

The issue of preparation for a competition could not be overlooked in an examination of factors contributing to successful performance due to its relevance. Based upon the athletes' comments, preparation processes were divided into three main phases, namely: long-term preparation, final conditioning, and on-site preparation. Definitions as well as descriptions of athletes' preparation processes in each of the three phases are presented in the following pages.

Long-term preparation. Long-term preparation referred to a process of preparation and/or daily practices aimed at a particular competition(s), starting anywhere from years, months, or weeks prior to the competition(s). The preparation time depended upon one's plans and goals as well as the perceived importance of the competition(s). The quality of preparation was determined by three factors: precision, intensity, and extent (initiation) of preparation. The quality of preparation increased for those competitions which athletes considered to be more important; it was linked with the degree of the athletes' determination or commitment to the competition(s). Specifically, the initiation of preparation was much earlier, and the intensity and precision of training were greatly increased for the more important competitions. To give contrasting examples:

I started preparing for the competition much earlier. As soon as I began weight control I devoted everything in my life to the competition. All my heart and soul was

in it. (5:9b)

I couldn't focus on {sport} so much around this time. I wasn't practicing so much, and I wasn't preparing for the competition at all. Neither physically nor mentally. (10:11b)

A clear example of the relationship between early preparation and commitment was found in athletes' preparation for the Olympics, the competition which they considered to be of greatest importance. When athletes were asked to recall the time at which they first started to prepare mentally for different events, it became obvious that preparation for the Olympics began much earlier than for other competitions for all athletes, although there was a wide individual differences. One athlete commented that he had been preparing: "all the time since I was born" (32:12). Five reported starting after the last Olympics (4 years prior to this one), either after being defeated at the last Olympics, after missing making the last Olympic team, or since the boycott. One said he had been preparing since a year ago (after winning the World championships). One reported he decided to go for it as his new year's resolution (seven-eight months before); and one began preparing a few months before the Olympics, after having qualified for the Olympic team.

Three athletes discussed another aspect of the Olympic preparation. They stated that they deliberately tried to focus on the task at hand rather than on the Olympics, and to accumulate small steps rather than to "overleap with ambition":

It [the Olympics] is not just a once-in-four-years thing. It's once-in-a-lifetime. It doesn't automatically come visit you if you sit back and wait for it. That's why I didn't want to think about the Olympics...Although the Olympics had always been my dream, I only began to speak of the Olympics to the media a year before. When they asked me questions, I kept saying: "The Olympics? No way! I focus on one competition at a time. Year by year." I said so because I tried to make myself believe it, too...Because I knew it was not so easy to win it, and there would be some possibility of winning only if I accumulated intensive training day after day. I told

others so, as well as myself. But deep down in my heart, I became conscious of preparing for it at the point the finals were over in {the last Olympics}...That was the real start, to tell you the truth. (4:7)

Successful preparation also involved long-term planning. The athletes reported that goals were set, training schedules were established, and programs including the peaking process were planned for the long run:

To aim at the worlds, I prepare for it by a gradual peaking process...For the national championship, I've got to reach a small peaking stage as a step for the worlds. If you already reach the highest peaking stage at the nationals, you will have to let it down, then up again for the worlds, which is no good. So I take a gradual linear-like process of peaking. (24:10)

This year, for example, the main competition is the world championship in {Country} in the fall. So we are still in a period of strengthening basic techniques...During this time I don't care about my rivals. Just training with types of guys whom I have trouble with. But as competitions approach, I keep my rivals in mind while choosing training partners. (13:7)

Success levels in competitions were directly affected by how athletes had been practicing over the long-term, as mentioned in the earlier section on confidence. Five athletes commented on a relationship between completeness of practice and a state of confidence at a competition:

It's quite normal that there is a difference in level of confidence between when you've done everything you could and when something is still left to be practiced. (22:16)

I was totally satisfied with the whole training I had been doing. Things were perfectly finished up. It couldn't be better than that. So I was fully confident, too. (24:13b)

Two or three months before the competition I twisted my ankle but I got back to training with a fixed ankle by taping before its complete recovery. So I had a huge worry from the fact that I hadn't been pushing myself to 100% in training. In addition, I broke my wrist earlier in the year...and I was away from training for three months. I was so worried because I was preoccupied with an idea that I was lacking in training throughout the year. (13:16b)

Regardless of the length of long-term preparation, the athletes eventually entered the

next phase of preparation, final conditioning.

Final conditioning. The second phase of preparation was termed final conditioning. Final conditioning referred to a process of peaking physically, technically and mentally, or making final adjustments, during the days shortly before the competition. Athletes normally started the final conditioning process, along with physical tapering, somewhere between one and two weeks prior to a competition, or often after the day of arrival at their destination in the case of international competitions. However, the timing depended totally upon the type of sport, level and importance of the competition, and athletes' circumstances. Further, at competitions in which preliminary heats (qualifying rounds) and the finals were scheduled on separate days, the day(s) between the preliminaries and the finals was also counted in the final conditioning period. Nevertheless, at this stage, athletes' efforts were directed towards properly increasing physical and mental energy levels to bring out the highest peak on the competition day:

I was in the full swing of things. 100%...I had no injury. There was no worry, physically and mentally. (13:4)

Unfortunately, however, this was not always the case. The situation could abruptly or unexpectedly change, no matter how well everything had been proceeding before hand. In such cases, some kind of coping measure was needed to regain control:

I digested all my training programs so perfectly just as I planned. Physical and mental peaking was coming along just right. I went to the {Olympics} without any doubts or worries...Since I arrived at the destination and started the final conditioning, everything was going so perfect. Mental peak was not too high but not too low. Just right. However, at practice two days before the match, I felt pain in the back of my thigh...Since things were going more than perfect, super perfect, I lost my control and worries bust up and spread out so badly. (13:9)

Describing the optimal physical and psychological state, three athletes reported that

staying relaxed, or keeping themselves from becoming tense or excessively excited, was an important aspect of preparation during this period:

So just stay relaxed as much as possible during the final conditioning period. Focused only for an hour at practice and be relaxed elsewhere. (13:10b)

Otherwise, as some athletes experienced, they could be burned out or psyched out even before the day of competition. Some athletes realized the importance of proper mental preparation at this stage:

I was like a lifeless shell. I mean I spent all my mental energy prior to the {Olympics}...During the preparation period for the Olympics I was on the top of the peak and I was already at the bottom on the day of competition. (8:12)

I was defeated even before the competition began...On the first day of the competition, we [Japanese team] all went to watch {a Japanese athlete} for the purpose of getting familiar with the atmosphere in the arena and judges. But unfortunately, it affected me negatively...I was totally psyched out even though it was still three days before my match...We saw a Japanese athlete almost being forced to lose, due to a bad judgement, although he appeared to be winning...Also, there was a very strong anti-Japanese sentiment and people were hissing at Japanese athletes so badly...I couldn't sleep at all for three nights prior to my match. I was totally burned out already on the day of my match. If you don't sleep for three nights, your body is really dull...I was completely out of energy after the first match. My legs were stumbling. My mind was all blank. I was so extremely exhausted that I couldn't even think about the next match. To the point that, I think you can say that it was only a result of bad final conditioning. (13:15)

One athlete also reported his behavioral style, in the final conditioning period, which consisted of following his feelings with spontaneity rather than specific plans or routine:

Before a competition I did what I felt like doing on my mood of the moment. No planning. Eat or drink whatever I felt like at the moment. I liked to be natural with myself during the final conditioning period...So I did things differently each time depending on my feelings. I mean I sort of followed my instinct what to do. (6:8)

Another type of preparation which needed to be done in this final stage was to get acquainted with the competition site. During on-site official practice time, athletes tried to

get a feeling for a particular site, and also gathered information about its features, since no two places were identical. Further, if their own events were not scheduled on the opening day, some athletes also checked on the tendencies of the officials by watching others competing. Particularly at international competitions, this information gathering was an essential part of preparation:

First of all, when I arrived at the gym...I sat down in an audience seat and looked around the whole gym. Once I had captured the whole picture of the gym, I then went down to the actual stage. I checked out where I would be, where the judges would be, where I would start my routine, and so forth. I checked on the lighting, too....you must adjust yourself to the [situation and] equipment. (22:11b)

Although the last two sections revealed that preparation processes prior to the day of competition had a strong impact on success levels in performance, the most critical phase of preparation was on the competition day.

On-site preparation. The final phase of preparation was termed on-site preparation. On-site preparation referred to final preparation exercised on the day of competition in order to bring on readiness, focus, and the highest physical and psychological peak possible under the circumstances, right up to the moment when one's performance was about to begin.

Some athletes discussed time management at the site. Time management meant how to spend time at a competition site, from the moment of arrival on a site, between events (matches, races, routines), to the completion of all of an athlete's events. Although methods of on-site preparation varied among different sports, individuals and competitions, the athletes generally recalled their personal patterns. Some athletes reported spontaneity: "I behaved spontaneously to reach the highest psychological peak at the right moment. I naturally learned how to do it from various past experiences" (22:10). Meanwhile, some athletes

reported focusing on each task at hand, such as weight checks, food and drink intake, resting, warm-up, and waiting for their turns, with competition procedures in mind:

First of all, make sure not to fail a weight check. After that, I thought of food and drinks. How I could best bring my physical condition back to being as good as it was before the weight control. I still had few hours to go before competition began, so I figured out how much I should sleep or rest, and what time I should get up. That was pretty much enough to fill up my time. (5:7)

I was thinking of when I was going to be performing in the next event. If I were the first, I had to cut short my warm-up...Because you can't perform at your best if you warm-up too long, due to a loss of stamina. (22:11)

Recalling successful competitions, four athletes spoke of the importance of maintaining the right feelings. They described the right mental state as feeling in control, feeling lively, cheerful, or fit, an attitude of "enjoy it" as well as "performing as if in practice". In the meantime, they were aware of keeping their own rhythm or pace, and saving mental energy for the right moment:

What I particularly paid attention to was staying lively. There was no problem getting my rhythm during warm-up. But the important thing was to maintain that rhythm until I heard the gong. (32:14)

I was thinking: "Be lively. It's the last match of my life anyway. So show my best, and enjoy it." (32:17)

I almost felt as if I were in practice, although I was a little more excited. (22:11)

I stayed cheerful, talking with people. But at the same time I held the fire blazing inside me for the moment. (24:9)

On the other hand, four athletes recalled that they felt out of control at their less successful competitions:

I couldn't get rid of my fear. To tell you the truth, I was competing while thinking: "What can I do? What can I do?" (6:8)

In relation to retaining the right feelings, four athletes also mentioned the importance

of maintaining an optimally relaxed state. At their best competitions, they successfully kept themselves in an optimally relaxed state by talking with peers, using breathing exercises and through other means:

Between matches I was joking around with guys, and I was relaxed. (6:11)

On the day of competition, I automatically get excited. I don't have to save it necessarily, but it's no good if I get overly excited or tense. So I take a deep breath to relax. (13:10-11a)

During the time I'm waiting for my turn at the back, I try not to think of anything. Just to make my mind blank. I don't listen to music to relax. I just try to feel relaxed. (13:11)

Two athletes made more detailed comments on a relaxed state. One athlete said: "This relaxation means both physically and mentally" (6:11). Another athlete pointed out that relaxing did not necessarily mean a total relaxation:

You shouldn't be totally relaxed in competition. You must be relaxed to some extent, but at the same time, you need to feel fit. (13:15)

Some athletes discussed mental preparation strategies they employed shortly before performing. Two athletes mentioned that mental imagery was a part of their on-site preparation. One athlete preferred to picture detailed tactical strategies as a rehearsal, whereas another preferred to keep the imagery general, simply to get the feeling of performance:

I went through the moves that would work best for me as well as worst for my opponent. I pictured the moves that get the most out of my ability and the least out of my opponent's. Also I went through many strategies in case things didn't work...I was also aware of a couple of his moves I would have to be careful of and the situations that would have to be avoided. (4:8a)

Up to the moment of a match, I don't have so called a relaxation method, but I just make my mind blank and relaxed and generally get the images of the next opponent, while physically being relaxed. It's no good for me to think of tactical stuff before a

fight because I get mentally drained. (13:11)

One athlete also mentioned his psyching-up strategy, which he always employed five minutes before each performance:

As usual, just five minutes before a match I started to slap my face. Psych myself up to the max, and go. (6:11)

At successful competitions, some athletes paid attention not only to keeping themselves in control, but also, occasionally, to psyching out others. For instance, one athlete kept a smile on his face to prove his confidence, while another showed his motivation through his body language, both with the intention of putting others under pressure:

I kept myself looking cheerful. When I chatted with other guys I showed them a smile. Because I thought it would be a proof of my confidence and would add to their pressure. (22:11)

I did a couple of arm circles to show him my motivation. (32:14)

Lastly, in a discussion of successful competitions, six athletes reported that readiness and psychological peak were reached at the very final stage of the on-site preparation, meaning at the point immediately before performance:

When I stepped out onto a mat I had a feeling of preparedness like: "I've done everything I could and here I am." That kind of attitude. (5:7a)

At the point when my turn comes next, while I'm sitting at a waiting seat...mental energy is automatically elevated without doing anything particular, just by seeing other guys fighting right in front of me. But the highest peak is reached only after I step out onto the mat, and bow. (13:11)

Along with mental readiness, full focus was a state that needed to be reached at the very final phase of preparation. Mental readiness seemed to be reached automatically or simultaneously if the athletes' focus was totally on performing:

If I think of my winning performance, I did well when I was detached from everything

around the world [immediately before performance], and felt: "Okay, ready!" (32:18)

In brief, processes of preparation for competitions were divided into three phases: long-term preparation, final conditioning, and on-site preparation. This section generally revealed that each of the three phases of preparation was relevant in determining the athletes' levels of success at competitions, although the objectives of preparation differed at each phase.

Mental Readiness

Mental readiness referred to a psychological state of being/feeling prepared or feeling just right at the moment one's performance is about to begin. Six athletes discussed three main issues related to mental readiness, including the importance of readiness, factors influencing readiness, and thought orientations of readiness.

Four athletes recalled being in a state of readiness immediately before successful performances. Since physical and technical aspects could not be improved at the last minute, the most important thing to do at that point was to get ready mentally:

I was thinking: "All I can do at this point is to just go for it. Let's accept the whole thing and be ready." (5:6)

As well, one athlete pointed out the importance of being totally ready prior to the start. He explained that the very beginning of the performance (a match) was often decisive of the outcome in his sport:

We've got only five minutes to fight in judo. So the person who creates his own pace at the very beginning of the fight is the winner...That's why it's so important to be totally mentally ready before it begins. Once a fight has begun, it may not be too late, but it's very difficult to change the pace. (8:10)

In reaching a state of readiness, factors such as determination, confidence, mindset,

focus, dealing with psychological barriers, and preparation processes, were found to be interactive of each other. Since mental readiness was directly related to physical/technical preparation, the development of mental readiness was considered as one component of preparation processes. While athletes sometimes reached a readiness state naturally without any interruptions throughout whole the preparation process, at other times a conscious effort had to reach a state of readiness. More specifically, when athletes were physically and technically well prepared and encountered no obstacles or psychological barriers, they were most likely to spontaneously reach a state of total readiness. Most often, however, they had to initiate some kind of coping measure to deal with obstacles to reach a state of readiness.

The following two quotes illustrate the contrasting patterns of reaching mental readiness:

I was mentally ready...When I stepped out onto a mat I had a feeling of preparedness like: "I've done everything I could and here I am." That kind of attitude. (5:7b)

I was ashamed of the injury [happened during competition]. But I was thinking: "Even under the circumstance I could go and fight for the final by being mentally prepared by making myself intense to the max." (4:9b)

Although one might assume that natural uninterrupted preparation would bring on a high state of readiness more easily than being faced with obstacles, two athletes reported contrary examples. They made a striking point that mental readiness could occasionally be reached more effortlessly when physical conditions were not optimal, such as due to injuries, particularly at important competitions. To elaborate, a physical disadvantage eliminated irrelevant thoughts of unwanted pressure or winning, and allowed the athletes to focus only on the task at hand. The athletes demonstrated successful or "miraculous" performances under such circumstances by positively accepting the situation, composing their thoughts for performing their best, and becoming mentally ready. It was often with the help of a strong

sense of confidence and determination to win, although this might sound contradictory to the fact that they put winning out of their mind:

I was totally ready to perform on the day of the match from the morning. I was focused even better than when I was in perfect shape. Because any irrelevant thoughts were all gone. (8:6-7)

Although I got injured ten days before my match...deep down in my heart I knew I was going to win. That's it....I didn't even have time to be anxious about my injury. Rather, I felt I was going to take this challenge that was given to me. (8:6)

Aside from preparation processes, mental readiness was also related to confidence levels. Obviously, when athletes felt highly confident a high level of mental readiness was reached more easily, although this was unfortunately not always the case. One athlete pointed out that developing a sense of acceptance for the situation became critical to reach a state of readiness. He summarized that confidence and acceptance were the keys to mental readiness, and thus, to a successful performance:

When I injured my leg in {Olympics} I told myself to accept the situation and be ready. You must have total belief in yourself in the face of the match. Or accept things and be mentally ready if you can't. "Things will follow the path. I know the result anyway. All I can do is to do my best." That kind of attitude. You must have either confidence or a sense of acceptance. Because having any bits of doubt before a match doesn't do any good. (4:9)

In contrast to the cases of successful performance, athletes performed below their potential when they failed to take action to develop mental readiness in the face of obstacles:

After I got injured [two days prior to the match], I became so anxious about it, even though it wasn't such a big deal. I still think that I should have or could have done something with this worry stuff. I think that the result could have been different if I had a "it doesn't matter" attitude. (13:9b)

Five athletes discussed the orientation of their thought when reaching a high level of readiness. At their successful performances, regardless of the circumstances, their thoughts

were directed to "just giving their best":

I was thinking: "I've done everything I could and should. Now the only thing I've got to do is to get the best out of what I've done." (4:7)

One athlete realized later in his career that giving his best was all he could do, regardless of circumstances or outcomes:

"Just give my best", I started to think that way later in my career. I tried to get the best out of what I've got rather than to win. Of course, to backup that thought, there was enough evidence that I wouldn't lose if I gave everything. Nevertheless, I was thinking: "If I do my best yet lose it, that's fine. It means that the guy is stronger than me. In that case I can't help it." (32:16)

In a discussion of less successful performance, four athletes recalled that their orientation was directed toward winning, appearance, others' expectations or negative thoughts, instead of toward giving their best to the task at hand. For instance:

In that competition I entered myself for two weight divisions. And I was thinking: "All right. I'm going to sweep the two championships." But there was a pitfall in it. I mean I should have been focusing on one at a time, giving my best one at a time, and winning one by one, instead of all together. Those two matches were scheduled on the first and the final days. On the first day I was thinking such stupid things as: "If I do too much today and make myself tired, it's going to be tough on the final day." And sure enough, my opponent took my elbow and it resulted in my having a dislocated elbow. (6:11)

On the whole, it could be concluded that reaching a high level of mental readiness was the ultimate purpose of overall mental preparation for competitions. The bottom line of mental preparation was to be mentally ready at the moment just before performing, in order to execute the best possible performance, regardless of the circumstances or the thoughts and feelings experienced beforehand. Those factors that contributed to developing mental readiness included determination to win, confidence, mindset, focus, coping with mental blocks, and preparation processes. In turn, a state of mental readiness could be conditioned

by a foundation of those contributing factors.

Post-Competition Evaluation

Five athletes touched upon issues associated with post-competition evaluation. Of these, two reported that they reflected upon their performance regardless of the outcomes, whereas one evaluated only upon defeat, one remembered the feeling, and one hardly evaluated at all (although he used to). Those athletes who consistently reflected upon competitions, whether winning or losing performances, pointed out two roles of evaluation: helping them to make further improvements, and to build knowledge of the patterns of winning as well as losing:

I consider competitions as opportunities for learning, regardless of whether I win or lose. There surely are some reasons for losing. But even when I win, there still are some areas to be improved, always. So I evaluate my performance for further improvement. (8:8a)

I evaluated why it went well and why it didn't go well. Both cases. I reflected on good performances, too. Because I couldn't know what to do to perform well unless I kept track of such information as a resource. (22:12)

Constructive evaluation did not only help athletes to improve their skills, but also to neutralize the pain of losses and to turn the negatives into positives, keeping them from undermining their confidence:

Whenever I lose, there are always reasons for that. So I must find out what they are, and overcome. I mean it's so painful to accept that I've lost and think of what was wrong with me. But you must face it positively. You must analyze how you performed, how you approached the competition, or prepared for the competition, and so on. And then you must work on it to overcome. (8:10)

Regarding losses, one athlete shared his perspective: reflect on it promptly and then forget about it, inasmuch as keeping negative images does nothing but harm:

Of course I reflect upon my performance...I evaluate the bad ones right after the

competition so as not to make the same mistake again. But I try to get rid of it once I've evaluated, because I don't think it's good idea to carry negative images for a long time. It will stick in my mind unless I do so. I'm the one who knows what was the cause of my losing better than anybody. And it's better to figure it out soon after while memory is still fresh. So I try to reflect well enough on the same day so that I don't need to look back on it again. Then I forget about it. It's hard to forget, but I try anyway. (13:12)

More importantly, once evaluation was done, the lessons had to be acted upon in later performances, a view presented by two athletes:

Of course I reflected upon my performance. If actions are not taken for the next time, it's not a real reflection. (22:12)

While some athletes stressed the importance of evaluation, quite surprisingly, two athletes reported that they hardly evaluated their performance, although they felt it to be necessary:

I didn't look back upon my performance so much. If they were good ones, I would just remember the feeling. But I didn't particularly analyze them. Even when I lost, I didn't analyze the details so much either, although I knew I should have. I just hated to look at myself. (24:10a)

I don't reflect upon my performance so much...I used to tape my performance, but I stopped doing it recently. (10:7)

In brief, post-competition evaluation was identified as a factor contributing to successful performance at competitions, although not all the elite athletes in this study always did complete post-competition evaluations. However, the fact that those athletes who constructively evaluated their performances demonstrated relatively more consistent performance indicated that this was a fairly significant factor.

In summary, an examination of elite athletes' mental approaches to competitions revealed that seven factors related to mental preparation for competitions could possibly separate successful performances from poor ones. The seven factors included were

determination to win, confidence, mindset, focus, dealing with mental blocks, preparation processes, and mental readiness. In addition, post-competition evaluation was identified as a factor that facilitated consistency in skill improvement and the demonstration of a higher quality of performance. These mental factors appear to be interactive rather than independent. Reaching a high level of mental readiness and full focus was found to be the ultimate goal of mental preparation for competition, most probably because it brought about one's best performance under the circumstances.

Psychological Enhancement Strategies

Psychological enhancement strategies were defined as techniques or strategies employed by athletes to enhance their performance. Although various psychological techniques have already been discussed, this section differs in two ways. First, it integrates various settings such as practice and competition; and second, it illustrates mental strategies with respect to their objectives. In examining the applicability of mental strategies, making a connection between the strategies and their objectives was found to be useful.

As a result of the analysis, seven general objectives of mental strategies were identified, including: 1) motivation enhancement, 2) confidence enhancement, 3) skill development, 4) performance readiness, 5) relaxing, 6) psyching-up, and 7) focusing/refocusing. Strategies employed to fulfill such objectives were grouped into nine main categories, including: 1) goal setting, 2) planning, 3) self-evaluation, 4) simulation, 5) mental imagery, 6) video-study, 7) drawing on inner strength, 8) positive self-talk, and 9) talking with others. Although the strategies were organized into nine categories, it must be noted that they were unique to each individual and personalized. The following pages briefly

describe each of the seven objectives of the psychological enhancement strategies, and illustrate the main characteristics of each of the nine types of the strategies and their practical applications. A summary of the main psychological enhancement strategies and their applicability may be referred to in Table 11.

Objectives of Psychological Enhancement Strategies

While analyzing reported psychological enhancement strategies, certain patterns were recognized in the types of objectives. Each of the seven objectives is briefly described in the following pages.

Motivation enhancement. Motivation enhancement was operationally defined as attempting to retain, to increase, or to regain one's enthusiasm in sport-related activities in an effort to achieve one's goal, make further improvements, demonstrate a better performance, or be successful. Numerous examples, characterizing an objective of motivational enhancement, were reported. The use of all nine main strategies (goal setting, planning, evaluation, simulation, mental imagery, video study, self-talk, drawing on inner strength, & talking with others) was reported in enhancing athletes' motivation. Two examples characterizing motivation enhancement were:

I wrote down "Beat {Name}!" on a piece of paper and stuck it on the wall in my room. Whenever I saw the paper, even when I was dead tired when I got home, a feeling of chagrin at the defeat against the guy vividly revived. With that piece of paper it wasn't so difficult to encourage and push myself even harder. (4:3b)

When the practice gets tough I have a little conversation with myself like: "Your opponent is feeling just like you now. Is it okay to give up on yourself now?", "No, it's not okay at all." (8:4)

Table 10.
Psychological Enhancement Strategies and its Applicability

	MENTAL STRATEGIES								
	Goal	Plan	Evalu- ation	Simul- ation	Imag- ery	Video Study	Self- Talk	Inner Strgth.	Talk w Others
Motivation Enhancement	*	*	*	*	*	*	*	*	*
Confidence Enhancement				*	*	*	*	*	*
Skill Development	*	*	*	*	*	*	*		*
Performance Readiness		*		*	*		*	*	*
Relaxing					*		*		*
Psyching-up	*				*		*	*	*
Focusing/ Refocusing	*						*	*	
A P P L I C A B I L I T Y									

Notes. Strngth = Strength; w/ = with.

The table can be referred to in two ways: finding out an applicability of a single strategy to the different

Confidence enhancement. Confidence enhancement was defined as attempting to increase, stabilize, or regain one's belief in oneself, in what one is engaging in, and in one's capability of performing well; or to undermine doubt, insecurity, or uncertainty. Since low confidence was identified as one of the factors that hindered athletes' performance in competitions, athletes employed several strategies to maintain confidence. The main strategies that helped enhance athletes' confidence were simulation, mental imagery, video study, self-talk, drawing on inner strength, and talking with others. Three examples relating to confidence enhancement were:

No matter what others say, I always believe: "I'm the best!" (13:7)

When I have a bad image of my opponent when approaching a competition...I start to feel dispirited. Then I sometimes pick up easier guys in practice...to increase my confidence that I'm strong. (13:7)

When I had a doubt in what I was doing....I purposely ran through a park, wearing sweats. When I saw there old men and women who were retired from their jobs and almost had one foot in the grave, or when I saw students and white-collar workers hanging around in a shopping mall, it reminded me of why I was running and I was different from other ordinary people...Then, I could accept: "This is the way of my life," and felt relieved. (32:10)

Skill development. The term skill development referred to the development and improvement of any sport-related skills, including physical, technical, tactical, and mental skills. Skill development was obviously one of the primary purposes of sports participation and training. Hence, various strategies were reported that served for the purpose of skill development. The main strategies used to enhance skill development were goal setting, planning, evaluation, simulation, imagery, video study, self-talk, and talking with others. Two examples characterizing the objective of skill development were:

To prepare for a specific opponent, I did imagery just before practice. I made up a

scenario: "He moves such and such, so I'm going to do this and that." And then I asked my training partners to imitate that opponent just as the way I did in the imagery. (6:6a)

I try to throw guys two or three times, whom I'm normally able to throw only once in a practice session. (13:5)

Performance readiness. Performance readiness was defined as a mental state of being prepared for performing to one's best under the circumstance, prior to a competition or a practice session. As mentioned in the earlier sections on mental approaches to practice as well as competitions, mental readiness was critical for a higher quality of performance. Competition readiness provided athletes with a better chance of successful performance, whereas practice readiness facilitated a higher quality of training. Practice readiness was related to competition readiness, in that high quality training often led to successful performance at competitions. The main strategies employed for the purpose of performance readiness included goal awareness, planning, simulation, mental imagery, self-talk, drawing on inner strength, and talking with others. Among those, one of the most practical strategies was simulation of competition demands in practice. Two examples characterizing the objective of performance readiness were:

I was saying to myself: "Okay, now I'm going to practice in order to be a champion!" I was saying that to myself everyday before practice. "I'm going to try hard to be strong. I know I don't want to practice, but don't just walk away! Try hard! Hang in there!" (5:3b)

I try to create the atmosphere of competition in practice. Because if I do so, I won't have to get real tense at competitions, although I still may be uptight a bit. (8:3b)

Relaxing. Relaxing was operationally defined as an action or a process bringing on a physically and/or mentally relaxed state. Only a few of the eight main strategies, such as self-talk, talking with others, and imagery, were relevant to accomplishing the objective of

relaxing, due to the specificity of the task.

In general, conditions of relaxing consisted of three types: relaxing at a competition site, relaxing in a daily life, and relaxation for coping with pain and fatigue. At a competition site, the main purpose of relaxation was to avoid becoming nervous, tense, or excessively excited, and to rest one's body and mind so that athletes felt ready to perform. Obviously, athletes should have not be in a total relaxed state on the site, as one athlete put it: "You shouldn't be too relaxed at competition. You have to be relaxed to some extent, but at the same time you need to feel fit" (13:15). Each athlete used a suitable method of relaxation for himself; including massage, talking with peers, and breathing exercises:

Between matches, I try to be relaxed while receiving a massage...And to avoid becoming nervous, I talk with a care-taker. (13:14)

On the day of competition, I automatically get excited. I don't necessarily have to save a feeling of excitement. But it's no good if I get overly excited or tensed. So I take a deep breath to relax. (13:10-11b)

Relaxing in daily living involved total relaxation. The main purpose of relaxation employed in daily life was to relieve stress or fatigue, to be disconnected from sports related activities and thoughts, or to refill energy for tomorrow's practice. This relaxation time occurred mainly the end of the day, after completing all the practice sessions of the day. Relaxation could be accomplished in many different ways, including chatting, joking around with friends, having a couple of drinks with friends, going to "Karaoke" (singing) with friends, going to favorite places, or "being alone". One athlete also said: "Being alone is another way of relaxation, too" (6:5). No athlete in this study reported having systematic methods of relaxation, such as following a relaxation program or listening to a relaxation tape. Two examples characterizing relaxing in daily living were:

When I was mentally drained after bad practice, I called up my friend and had a little chat. That was the best way of relaxing for me. (32:10)

In a sense, my drinking pal was my personal counsellor. If you have someone with whom you can open up your feelings when you are down, I think that's the whole point of psychology. To relax and mend your heart. So is the alcohol. I'm really relaxed when I'm drinking...That was the best way for me to relax and to refill the energy for tomorrow. (24:17a)

Third, relaxation for coping with pain and fatigue was somewhat different, often involving the use of imagery:

When I was on weight control, I became so thirsty. Not only could I not drink, but also I couldn't eat, sleep, and have fun. All of the basic human desires were shut out. Then I started to imagine a huge beautiful green field with water streaming and white cabbage butterflies fluttering around. I always thought of this image [when I was in pain]. The image...really helped me feel at ease and I even felt like my throat got moistened. (32:11a)

Psyching-up. Psyching-up was operationally defined as increasing or intensifying one's physical and/or mental energy levels to the extent to which one feels is necessary, when it is lower. When athletes were not in the optimal physical/mental condition, whether in competition or practice, they had to act to pick up the energy in order to do the best under the circumstances. Although psyching-up was similar to motivation enhancement, these two were distinguished as follows. Psyching-up was aimed at a relatively immediate performance effect or increase in physical energy level, whereas motivation enhancement primarily involved an increase in mental energy level. Methods of psyching-up included goal setting, imagery, drawing on inner strength, self-talk, and talking with others. In addition, due to the specificity of the task, breathing exercises and pumping-up exercise were reported. For example:

In warm-up when I felt: "My body is heavy. I can't focus. I'm going to have a trouble practicing today," what I did was to ask myself: "What if this were a

competition?" Also, I simply gazed at one spot and breathed faster and harder to pick up my energy. Or I simply did squats over and over again until whole my body was literally pumped up. (32:8)

Focusing/ refocusing. Focusing referred to being connected to a task at hand in the moment, being disconnected from anything but one's task, or being absent of any irrelevant thoughts. Refocusing refers to regaining a focus state in the face of any distractions. Knowing that focusing is essential for executing a high quality performance, whether in practice or competition, athletes consciously made efforts to gain or regain their focus. Since focusing was a mechanism functioning on a cognitive level, the primary means that brought on a state of full focus was self-talk, goals, planning, and inner strength. Three examples characterizing the objective of focusing/refocusing were:

Even when I have irrelevant thoughts, I try to bring back focus by motivating myself and telling myself to get absorbed in practice. (10:4)

As soon as the competition began, I forgot about everything even about ranking and was performing detachedly. (22:14b)

Normally I could draw the line between the last event and next event even if I made mistakes by telling myself: "It's over, anyway." (22:15b)

Having briefly described the main objectives of mental strategies, the following section illustrates psychological enhancement strategies identified in an integration of various contexts.

A Description of Psychological Enhancement Strategies

A review of interview data on psychological enhancement strategies revealed that the athletes employed common strategies in different contexts. The strategies were categorized into nine main types, including goal setting, planning, self-evaluation, simulation, mental imagery, video study, drawing on inner strength, positive self-talk, and talking with others.

Prior to describing each of the eight mental strategies, it should be noted that athletes did not necessarily recognize the strategies as psychological enhancement techniques, for instance: "I was simply doing such things necessary in my sport. So I wasn't aware that I was working on mental stuff" (6:4). Furthermore, five athletes pointed out that these strategies were not taught by anyone, but the athletes rather developed a system of mental strategies by themselves through various personal experiences. For instance, as one athlete put it: "Nobody taught me what to do. I did what I felt necessary or useful for my sport learned through past experience" (6:4). In fact, no athlete in this study formally received any extensive sports psychology counselling or a planned psychological enhancement program, although some might have gained knowledge from sports psychologists attached to the national team or lectures on sports psychology at universities. The following pages describe the characteristics of each of the eight strategies as well as its practical applications.

Goal setting. The use of goal setting, one of the most practical strategies, was reported by all nine athletes. Goal setting was mainly utilized to enhance motivation, skill development, performance readiness, psyching-up, and focusing/refocusing. A primary characteristic of goal setting was the wide variety of its applications. Goal setting was applied in many different ways in such contexts as training, competition, and sport-related aspects of life other than training and competition (e.g., when overcoming difficulties, weight control).

Goals were set with respect to two main attributes: the time frame of the goal and the object of goal. The time frame of the goal defined time span or scope of goal; ranging from the dream goal or ultimate goal of a career, annual goal, seasonal goal, monthly goal, weekly

goal, to daily goal. The object of goal defined the specific task content of goal: personal goal, task specific training/competition goal, opponent specific training/competition goal, outcome-oriented competition goal (final placing or ranking), and performance-oriented competition goal (personal best time or the quality of performance). The longer-term goals were often associated with outcome-oriented competition goals, mainly functioning as a motivator for remaining in pursuit, whereas those of a shorter-term were associated with task specific training/competition goals and skill development or preparation for higher levels of competitions. A few examples indicating the use of goal setting were as follows:

At the point I got on the national team, my goals were...winning the national championships, the world championships, and the Olympics. (6:5)

I said to myself: "I'll go home only after accomplishing one thing." (22:6b)

Whenever I ran, I had to finish first, whether or not I was in good shape. (32:9)

With regard to the styles of goal setting, the athletes most commonly had multiple goals working simultaneously, combining goals from the different time spans and objectives, and involving an element of planning. For example, an athlete might set the ultimate goal as winning at the Olympics, but at the same time he/she might set the annual goal of winning the national championship. In order to achieve those goals, he/she further set task specific training goals on monthly, weekly and/or daily basis.

In a practical sense, goals were typically set in a "step-by-step" manner in a long course over the athletic career. One athlete stressed the importance of setting outcome-oriented competition goals progressively in a step-wise manner, from small immediate goals to the ultimate goal of his career:

You shouldn't aim too high all at once. You should keep the biggest goal in mind.

But at the same time you must focus on clearing the closest range goals one by one. As a result of accumulating those small steps, you'll finally be able to reach your dream goal. (13:17)

One athlete reported another type of step-by-step goals, corresponding with phases of his life, more specifically a school system:

I set small goals like: "I will continue until I graduate from high school, or university." (10:2)

In addition, the previous quote implied that the specific goals had to be realistic and achievable at the time. When goals were unrealistic or not successfully achieved, or once the ultimate goal was met, athletes had to re-evaluate the direction and plans of their careers and reset their goals. It must be noted that goals became fully useful only if athletes were committed to achieving the goals. Nevertheless setting concrete goals helped athletes to be clearly aware of the meaning and the direction of effort exerted in their respective pursuits.

Planning. Strategies related to planning were reported by five athletes, and two different types of application were included under this category: planning schedules, and planning coping strategies. Both were associated with preparatory skills involving a plan of action. With regard to the first type of planning, planning schedules was acted on in terms of annual training as well as competition plans or weekly training plans, aimed at keeping things in perspective and constructively organizing or programming sports-related activities with certain goals in mind. It was effective in enhancing motivation and skill development. An example representing planning schedule was:

I usually plan my own training schedule to bring optimal peaks for those competitions...Make waves of low peaks and high peaks of the year. (13:6b)

With regard to the second type of planning, planning coping strategies were typically

planned as a prevention for potential hindrance to performance. It was mainly acted upon prior to a competition. Thus, it helped athletes enhance performance readiness and focusing/refocusing. An example representing a planned coping strategy was:

Your name is called, and you step out into the shower of crowds' scream from behind the curtain...And I didn't want to lose my cool at this moment. So what I thought the night before the final was...that my grandpa would be the barometer of my nervousness. (32:14b)

Self-evaluation. Self-evaluation refers to an activity of assessing or reflecting upon oneself and/or one's performance (e.g., physical, technical, tactical, & mental skills), as well as any sport relevant aspects of life (e.g., nutrition & living habits). Self-evaluation involved a system of self-monitoring, helping athletes with awareness of the areas for improvement. Evaluation was effective in motivation and targeting skill improvement. Although some athletes employed evaluation procedures on a regular basis, major evaluations mostly followed competitions:

I consider a competition as an opportunity for learning regardless of winning or losing...So I evaluate my performance after competitions for further improvement. (8:8b)

I measured my body parts quite often because I figured out the effectiveness of my techniques from that. (6:4)

After the practice we did meditation every day [to reflect on practice]. (32:9b)

Simulation. Simulation was a strategy specifically employed in practice as a means of preparing for competition. Six athletes reported that simulating competition in practice helped them to gain a sense of readiness for the overall competition situation and confidence in being able to handle difficult situations. It also helped them to develop substantial coping skills and patterns in terms of technical, tactical, and psychological aspects. For instance:

I built up these simulative experiences. I was still frightened at competitions, though...But I said to myself: "I did succeed in practice, no matter how fast my heart was pounding. So I can do it this time, too." (22:3-4b)

I always thought about the last five seconds. I imagined: "I'm now losing and I have to make a major upset in the last five seconds." I practiced a technique to deal with such a situation...And in fact the miracle indeed happened. (32:11b)

Mental imagery. Mental imagery was defined as a dynamic, internal process of generating the images of an action or a scene, involving sensory and perceptual experiences. The use of mental imagery, for different purposes and in various settings, was reported by the majority of the athletes (n=7). The nature of reported imagery mostly involved a visual sensation along with kinesthetic feelings and physical motions, in the absence of actual movement or activity. In some cases, an auditory sensation was also heard in mind. Imagery perspectives included both internal and external imagery. Athletes more often imagined being inside of their own body just as a real life experience (internal imagery). Athletes also viewed themselves from the perspective of an external observer (external imagery). A choice of imagery perspective appears to be made according to the types of imagery content:

Sometimes I was looking myself as an external observer. I saw another me moving. And some other times I was moving as being inside. For example, when I was imagining a nice [difficult] technique, I was inside myself. And when I was imagining a simple basic technique, like what I can complete perfectly, I watched it as another person...Or I saw myself winning from outside, too. (24:6)

With regard to the use of imagery, three athletes mentioned spontaneity in the occurrence of imagery:

I never set up a specific time for mental imagery...But most of the time I naturally start to think of {sport} when I'm in bed...It's just because sport is the center of my life. It might be called imagery training, but I don't perceive that I'm training. Images emerge spontaneously. (13:7)

In contrary, imagery was sometimes practiced intentionally, or on a regular basis, being

reported by two athletes. For instance:

I regularly did mental imagery in washroom....I sat down and imagined a specific situation like: "I grappled with my opponent. Now time to make a move. Okay, I'm going to do {technique} today. Move, move, move, and now let go!" (6:5)

Although mental imagery is a complex phenomena, two general characteristics of imagery were drawn out. One of the characteristics was ease of its application. Mental imagery required nothing but the athletes' mind by itself, and could be employed at anytime anywhere, for example, at a competition site, during practice, prior to practice, in bed, or in bathroom. Another general characteristic of mental imagery was multi-purposefulness. It contributed to accomplishing various objectives, such as enhancing motivation, confidence, skill development, performance readiness, relaxing, and psyching-up. One athlete particularly pointed out the usefulness of mental imagery in skill acquisition, by saying: "When you learn new skills or anything...forms or techniques, whether you see images before actually making a move or not makes a significant difference" (5:5).

During the days shortly before a competition, imagery was commonly associated with rehearsing a performance for a specific competition, whereas that of other circumstances served for developing technical, tactical, and mental skills, as well as relaxation and psyching-up. To elaborate, the typical imagery contents seen during days prior to a competition included technical rehearsal, opponent-specific rehearsal, tactical rehearsal, and winning images:

While I'm in bed, I imagine myself fighting at a main competition. I never ever imagine myself losing, though...I always try to picture images of myself winning at least at the very end of the match, whether or not I struggle. (13:7)

Before the final I pictured the match one more time in my mind...I pictured the moves that would get the most out of my ability and the least out of my opponent's. Also I

went through many strategies in case things wouldn't work...I was also aware of a couple of his moves I would have to be careful of and the situation that would have to be avoided. But believe it or not, I couldn't find any reason for losing no matter how many possible patterns I went through. (4:8b)

While I was heading to the gym from the Olympic village by bus for about 40 minutes, I was crying three times. Because I saw the images of myself winning. It was such an emotional moment that tears welled up in my eyes...Then, I said to myself: "Oh, no. I shouldn't be thinking this way. The competition hasn't even begun yet." In the third imagery, I saw myself standing on the podium and being in such a deep emotion, looking up the Japanese flag and singing the Japanese anthem...And what I actually experienced was exactly the same as what I saw the third time in imagery. (22:10)

Imagery employed other than in a pre-competition setting consisted of a wider variety of content. Imagery contents were split into two broad types: skill-developmental imagery, and non skill-developmental imagery. Skill-development imagery included acquisition of new skills in practice, corrections and/or improvement of learned skills, or tactical improvement with regard to specific opponents and/or specific competition settings:

When the practice wasn't going well, I first asked myself why, and pictured my performance as another person. I could see myself very clearly. Because a video tape, a camera, and a TV monitor were all in my head. So I recorded everything in my mind, then rewound it, played and watched the images...I took enough time to see what was going wrong. At the same time, I talked with another person inside me: "Hey! That point was a bit too early, wasn't it?", "Yeah, I think so, too. Let's make it a bit slower." (22:5)

I was often thinking at night in my bed: "Tomorrow I'm going to train with {a world champion}. And I'll do this and that, and get some points from him." (24:6)

To prepare for a specific opponent, I did imagery just before practice. I made up a scenario: "He moves such and such, so I'm going to do this and that." And then I asked my training partners to imitate that opponent just as the way I did in the imagery. (6:6b)

My knees knocked in fear during practice. I could imagine TV cameras shooting me now. There're 10,000 people watching me in the gym. A judge signalled me to start and turned on the blue light. A camera man came closer to me, things like that. Also, one of my teammates failed. If I fail now, it'll cost the team result. I must

make it no matter what." I made up such scenarios in my mind. (22:3-4b)

Non skill-development imagery referred to any types of images that were not directly related to development of sports skills, but rather contributed to accomplishing other objectives, which might include an enhancement of motivation, relaxation, psyching-up, and pain control:

When I was on weight control I became so thirsty. Not only could I not drink, but also I couldn't eat, sleep, and have fun. All of the basic human desires were shut out. Then I started to imagine a huge beautiful green field with water streaming and white cabbage butterflies fluttering around. I always thought of this image [when I was in pain]. The image...really helped me feel at ease and I even felt like my throat got moistened. (32:11b)

During summer I ran about 10K in a sweat suit to lose some weight...and when I felt I was dying, I'd throw myself into a movie "Rocky". Recalling the scenes and the beat of the music kept me up. (32:11)

Video study. The usefulness of video for psychological enhancement was implied by seven athletes. Video was generally utilized for three purposes: enhancing motivation or goal awareness by watching either others' or one's own performances, enhancing confidence by watching one's own good performances, and skill development often in a process of performance evaluation or analysing techniques of others' and/or one's own. For instance:

[When I was in junior-high], my coach brought his TV to the gym to show us [the Olympics]...By watching the highest level of competitions, it made me feel close to that level of competition in my mind. And also it made me aware of my future goals. (4:2b)

If they [performances at competitions] were good ones, I would just remember the feeling....and once in a while I watched those. (24:10b)

If you want to win, you've got to study yourself, your opponents, and techniques more than anybody. (6:4b)

Drawing on inner strength. Inner strength referred to one's positive emotional force (e.g., determination, dedication, belief, pride, & desire to excel) that provides one with energy

or strength to fight against difficult tasks and/or situations, to better undesirable situations, or to remain in one's career, based upon a desire to prove to oneself what one is capable of doing. Although drawing on inner strength might sound odd to be called a "strategy", it was a powerful resource for enhancing motivation, confidence, performance readiness, psyching-up, and focusing.

Inner strength was derived from various sources. The sources could be divided into two main elements: personal and social sources. Personal sources included either positive or negative feelings of athletes experienced either in the past or present (e.g., joy, pleasure, delightfulness & satisfaction; or anger, shame, embarrassment, humiliation, resentment & dissatisfaction), as well as acquired knowledge (e.g., learned lessons, developed personal philosophy, & information gained through other's advice or reading materials). Social sources were associated mainly with a support system within the athletes' surroundings, providing them with a sense of security. Successful use of these sources for strength or resolve allowed athletes to persist in their pursuit:

I left home with a firm determination: "I can't go home unless I become a champion." I met strong opposition from my parents when I chose a school to pursue {sport}. That's why I always said to myself: "I can't give up now. I can't go home with defeat." (5:2c)

When I didn't feel like practicing or when I couldn't focus I consciously looked at a scar that I got from my coach for not doing well in a competition. Then, it sparked my emotion. Miserable, shameful and desperate feelings revived in a flash. And then I said to myself: "This is wrong. I've got to do something." (4:6b)

The joy of winning or "all the efforts I made were worthwhile doing." That kind of joy cannot be substituted by anything. So I was training hard everyday to get that joy. (24:2b)

When I couldn't feel enthusiastic about training...I read books to find out how come it happened...[To get] a piece of advice for what to do to motivate myself. (5:4)

The fact that a lot of people gave me support helped me overcome difficult things. Knowing that I wasn't all alone. A sense of security. (6:3)

Positive self-talk. Positive self-talk was defined as having a conversation or a dialogue with oneself to create a positive state of mind that helps one accomplish whatever objective one wants at the moment. All nine athletes reported the numerous uses of positive self-talk, although they might not necessarily call it a "mental strategy". Self-talk was a representation of athletes' thoughts and feelings that occurred in their minds, and the mind was what guided the direction and the quality of their behaviors. Hence, the athletes' state of mind, whether positive or negative, determined the mode of self-talk, which in turn influenced the effective accomplishment of the objectives.

Positive self-talk was most often used compared to the other seven strategies, perhaps because thinking was a natural on-going function of healthy human beings. Self-talk was largely integrated with other strategies, such as mental imagery, video study, drawing on inner strength, evaluation, simulation, and goal setting. As well, it was the most multi-purposeful strategy, and was effective in all seven main objectives presented. The following examples characterized positive self-talk:

I said to myself: "Try one more day!," or "Hang on just this week!," or "It'll be only a year or two more that I can participate in a competitive sport in my entire life!" (5:6)

Weight control was really hard and I hated it. But after a while, about the time after I won the worlds twice, I started to take it differently. I thought: "Weight control is compulsory as long as I compete. If I have to do it anyway, let's change my attitude and try to enjoy it." (32:11)

Talking with others. Talking with others was reported by eight athletes, and identified as one of the effective mental strategies. The athletes felt talking with others helped them relax, relieve stress, enhance motivation, confidence, skill development, and

performance readiness. Among several purposes, relaxation was the most common one, typically employed in such situations as during competitions or after practice sessions. The content of talks varied depending on its purposes. For the purpose of relaxation, athletes had a talk, or perhaps a chat to describe it more accurately, with friends and peers just for fun and laughter, or to open up their feelings when they felt down:

If there is someone whom you can open up your feelings when you are down, I think that's the psychology. To relax and mend your heart. (24:17b)

On the other hand, for the purpose of enhancing motivation, confidence, skill development, and readiness, it was rather one-way communication, receiving advice or pep-talk from coaches or peers, in both competition and practice settings, although it was positively effective only if an established trust existed:

By listening to my coach's advice I managed to pick up my motivation. (5:4)

In summary, this section reviewed and summarized the effective psychological enhancement strategies employed by elite athletes, as well as the objectives of those strategies. As a whole, the findings revealed that the strategies were used to accomplish certain objectives under various contexts. Some strategies were more applicable than others, and also some contributed to fulfilling objectives more directly than others. Multiple strategies could be used to accomplish an objective. Some of the objectives were interactive with each others rather than being independent. Although the strategies were grouped into several categories to identify some commonalities, the athletes personalized their strategies to a great extent, and established a their own system.

Mental Elements Essential to Athletic Success

This section presents the mental elements that the elite athletes thought to be essential for success in sports. The insights were mainly drawn from three questions: 1) "What made you keep pursuing your athletic career?", 2) "What mental elements are the most important to achieving the highest level of success in your sport?", and 3) "What kind of advice would you give a young athlete to help his/her pursuit of athletic excellence?" Interestingly, many of the athletes' responses to these three questions overlapped with each other.

The athletes suggested numerous elements that they felt to be essential for success in sports, and those were categorized, re-categorized, and finally reduced to 13 higher-order elements. The 13 mental elements included: 1) goal awareness, 2) desire for winning, 3) hating to lose, 4) hating to give up, 5) loving one's sport, 6) positive attitude, 7) seeking improvement, 8) self-directedness, 9) openness to others' opinions, 10) focus, 11) desire for recognition, 12) support from others, and finally 13) fun experiences in the early stages of a career. Some of the elements were reported by the majority of the group, whereas others were mentioned only by one athlete. Those factors that were reported only by a small number of the athletes were also included. For two reasons; first, the goal of this section was to project the opinions of the athletes themselves about success factors in sports; and second, due to a small number in the study sample, there was potentially a significance in every factor mentioned.

Prior to discussing the 13 mental elements, it should be noted that one athlete made an excellent point that individual differences and circumstances of the athletes should be counted in identifying mental elements that were most essential, insofar as an athlete's own

perspective or a developmental perspective were concerned. Relevant individual differences might include age, skill levels, physical capacity, personality, and career history of an athlete; the immediate circumstances; and psychological weaknesses yet to be improved. As the athlete stated:

What are the most important factors of athletic success? It depends on who you are talking about. For example, when you are talking about primary school kids, junior-high, high school, or the top national level, they all differ in terms of the essential factors....It also must differ with each of the individuals. (22:18)

Nevertheless, the following pages briefly describe each of the 13 elements that athletes generally perceived to be essential for achieving athletic excellence.

Goal awareness. Goal awareness was defined as being constantly aware of the ultimate purpose or goal of one's athletic career that one chooses or wishes to achieve, together with the purposes of one's specific actions and behaviors in sports related and daily life activities. The following comment from one athlete displayed a view that clear goal awareness was one of the most essential elements in a long-term pursuit of excellence, a view shared by seven athletes:

If I think of why I could accomplish this level of achievement...it had to do with a goal awareness...I was clearly aware of my goals, more than anybody, perhaps even among the top national athletes. (4:4-5b)

One athlete explained the importance of goal awareness, as allowing him to conduct self-directed practice, to realize what he was supposed to be doing at the moment, and to assist him in overcoming obstacles to his ultimate goal:

If your goal is clear, then you'll practice on your own, but not to be pushed by your coach...And if you have a goal in your mind and want to achieve that goal, you must know what you should be doing right at this moment in order to make it. Also, when you know clearly where you want to go, that allows you to bear difficult things, even if that's what you don't want to go through. When I thought: "I can't achieve my goal

without doing this," I could go through with it. (4:4)

Although goals were the guidelines controlling the athletes' attention and directing their careers, the goal itself did not stand alone. Goals became operative only if the athletes were committed to achieving those goals, were willing to make the necessary efforts to achieve those goals, and found meaningfulness or value in doing it:

What made me keep pursuing? I think it was simply because I wanted to achieve my goal [winning at the Olympics] so badly. I was doing everything to make my dream come true. (24:4)

Among the various types of goals, the ultimate goal or dream goal was what motivated athletes the most, providing meaning to their effort and pursuit, and allowing athletes to remain in their careers and to exert a sustained effort over the long-term. For the majority of the group, winning the Olympics was reported to be their dream goal:

To me the Olympics was like the summit of the Mt. Everest. The final destination of my career...I think that's all that kept me going. (32:5b)

Although a single competition goal was often considered to be their dream goal, another form of dream goal was to win all major titles, for instance, the national championship, the asian championship, the world championship, and the Olympics:

My goals at the point I got onto the national team were winning at the nationals, the world championship, and the Olympics. Most athletes get the national title first, then, the world championship, and then the Olympics. But in my case, the world championship title came first, and the Olympics, and then the nationals. It was much harder to be the best in the country than to be the best in the world. (6:5)

I'd already won all other titles like the Asians and the world championships. The Olympics had always been my dream. (32:5)

Beside winning titles, one athlete reported that winning against one specific rival was his greatest and long-term challenge, and in fact the reason for his athletic pursuit:

I was going hammer and tongs at knocking down the greatest wall called "{Athlete}"....I must say that {Athlete} is a really great person and I'm very sure that I couldn't become what I am now if he wasn't there. (6:12)

Upon setting ultimate goals, one athlete pointed out how counterproductive it is to limit an ambition or lowering the levels of goals if one pursues excellence:

So many people limit their goals by themselves. For example, people are convinced by themselves that: "I can't go to Tokyo university [the highest level of university in Japan]." This means that these people are already targeting for a lower level goal. If they never dream, it's quite normal that they can't go beyond the limit and achieve the highest levels. (24:4)

In addition, two athletes pointed out the importance of being persistent in meeting their goals, despite various obstacles and discouragement:

My goal wasn't to go to the Olympics, it was to win the Olympic title. I definitely decided that by myself without any doubt. And more importantly, I managed to keep that dream torch lit all the time, in my mind. I think that was the energy what kept me going. (22:4)

One athlete stated the importance of setting a series of outcome-oriented competition goals in a step-by-step manner, from small immediate goals to the ultimate goal of his career. Aiming for and achieving small realistic goals in competitions immediately available at the time corresponded with the current skill levels. An accumulation of those goals finally led the athlete to reach the ultimate goal:

Setting the step-by-step goals, from small goals to the biggest goal, is one of the conditions that allow you to reach the highest level. (13:17)

Some athletes also acknowledged the importance of setting specific daily training goals, allowing them to establish constant and tangible progress:

When you step into a training area, think about what you want to accomplish today. (4:12)

For athletes taking part in an elite competitive sports circuit, the ultimate purpose of

participation was oriented toward winning, linking goal awareness and success.

Desire for winning. A desire to win or to be a champion was reported as one of the factors that kept the athletes going and allowed them to reach the levels of success that they had accomplished (n=5). This view was clearly characterized in the following quotes:

It's simply because I wanted to be a champion. That's all. (5:2)

When you approach the most important match of your career, you've got an attitude like "a soldier going onto a battle field". You step out in the field at the risk of your life. Dead or alive frame of mind. When you have such a mental state, you've got to be as tough as iron. It's not good enough to try hard. You must definitely and desperately want it. (4:12)

Because I only wanted to win...The basic idea of competitive {sport} is a skill contest. Say: "I can do this and that. Can you?" kind of thing. That's why my desire: "I want to win," was naturally there. (22:5)

Although one side of the athletes' motivation towards winning corresponded with a desire to win, the other side was a distaste for losing.

Hating to lose. A fine line existed between hating to lose and a desire to win, in that the ultimate focus of both was winning. The desire to win was associated with athletes' pure quest for winning of which being "No.1" or "champion". Hating to lose involved a sense of competitiveness against others and retaining one's sense of confidence and pride. Some athletes (n=4) felt that hating to lose was much more influential to their success than a desire to win:

It's because I hated to lose against other boys...It's not just because I wanted to win. But it's more accurate to say because I didn't want to lose...I really hated to lose since I was a kid...So hating to lose in {sport} was like an extension of my natural character. (6:3)

You always must maintain your attitude: "I don't want to lose to anybody." (8:14)

As much as athletes hated to be a loser, they also hated to be a quitter.

Hating to give up. Whereas the object of hating to lose was oriented toward other competitors, that of hating to give up was directed toward the athletes themselves. As with hating to lose, hating to give up involved the athletes' great desire to retain their pride. Seven athletes reported that not giving up on oneself, achieving their chosen goals or proving themselves was the important factor that allowed them to reach the high levels of success that they had accomplished:

My biggest goal was to continue with it, not to give up halfway what I decided to do. I think the biggest reason I kept going was that I didn't want to be a quitter. (10:2)

...my pride. I said to myself: "I came this far at this point. So I want to climb up and reach the pinnacle." (22:4)

In addition to the importance of persistence in the overall aspects of their careers, some athletes mentioned the importance of not giving up in a more specific context, practice and competition:

It's not fun to practice in {sport} at all. Rather, it is mostly painful. So you must have an attitude that you will not turn your back on it. (5:11)

You need a high level of persistence in competition, not giving up a match until it's really over. (4:12)

Regardless of the importance of goal awareness, a desire to win, competitiveness, and persistence, it would be difficult to keep striving for excellence without a sense of love or attachment to their sport.

Loving one's sport. A sense of strong attachment to, or an enthusiasm for their respective sports was another factor that the athletes felt was essential in their long-term pursuit of success (n=5). Athletes revealed that their love for sports was experienced in two ways: an innate compatibility with the nature of the sport, and an acquired sense of attraction

which occurred over time. The first aspect, an innate compatibility with the nature of the sport was characterized by the following quotes:

First of all, I loved {sport}. I think I was compatible with this sport....Because, by nature, I've got a keener competitive attitude than anybody. The intensity of {sport} satisfied my competitive spirit. (4:4)

I love fighting by nature. {Sport} is an one-on-one fight with some rules, so to speak. I loved to fight since I was a kid. That kind of thing never changes. (13:4)

The second aspect, an acquired sense of attraction over time as an athlete gained a better understanding of the nature of the sport, was characterized in the following quotes:

As I became more involved in {sport}, I began to love it. (13:4)

I learned a match in {sport} isn't a power game, but more like a game of mind-reading each time. I was attracted by that aspect of {sport} very much. (4:4)

Stuff like the joy of winning, a feeling of chagrin, and the intensity that you experience while pushing yourself to the limit leading up to competitions, you can't experience those very often in ordinary life. It's hard to put these thrills out of your life. (8:2b)

An emotional involvement or passion for the sport was found to be vital, as was having a positive attitude toward their pursuits.

Positive attitude. Maintaining a generally positive attitude was reported by athletes as essential element for success in sports (n=5). A positive attitude consisted of three related aspects: positive thinking, positive belief, and positive images. Positive thinking was the most common component, and referred to interpreting many situations in life in a positive way, or directing one's thoughts from the negative to the positive even under undesirable circumstances. For instance:

You've got to have a positive attitude. For example, when you lose, you must look ahead with a positive view or mental toughness, instead of despairing. (24:16)

I often see students setting a limit for themselves. They may be thinking: "It's useless to work harder because my capacity is only this much, anyway." Instead of that, you must test yourself and pull out your hidden potential. (8:15)

Positive belief refers to a state of mind in which one is confident in oneself, one's ability, one's capability of accomplishing one's goal or the possibility of performing well or winning. The following examples characterized the importance of positive belief:

You've got to believe: "I am the strongest," all the time...Once you've reached at a certain level, you must maintain this attitude. (13:16)

When you begin to think: "I may not be able to win," there is certainly not much chance to win. In any circumstance, whether or not there is a doubt in your mind, you must believe: "It's going to be just fine." Otherwise, you can't get over various obstacles. That's it. Because under any circumstances, regardless of what others say, it is ultimately you who control things. Even when the game is 10-0 for your opponent, you've got to maintain your attitude that you can do something to create an upset. (32:18-19)

Suppose someone wants to go to Tokyo university and if he really tells himself that he can, then I think he'll be able to achieve it or at least be able to go to the university right below Tokyo university level...So when I spoke of getting the gold at the Olympics, I could be at least within the top third in the world. (24:4)

Positive images referred to a mental picture, a mental conception, or a perception or projection of oneself in a positive light. The following quotes characterize the importance of carrying positive images:

Have a clear image of the ideal style of your {sport}...Also, have a clear positive image of yourself fighting at the most important competition in your career. (4:12)

Always be positive. Like "I'm No.1" or "I'm in perfect shape" kind of attitude. Create and carry positive images. Never, ever be negative. (24:17-18)

Seeking improvement. Four athletes reported the importance of seeking improvement to be able to achieve something exceptional, a view represented in the following quote:

[To accomplish the highest levels of success] you must be a person who craves improving yourself. (4:11)

Once the athletes got to a certain level, seeking improvement also meant breaking through perceived limits of their own or not resting contentedly with the levels of achievement that had been accomplished:

You must look for improvement all the time. Don't ever think: "This is the limit." But look for more. (10:14)

We, as human beings, quite easily rest contentedly with what we have, once we accomplish a certain level of success. But instead of that, you must remember: "There are many other people who are greater than you are." It kind of makes me realize: "I'm not big enough. I've got a lot more to go. So I have to work even harder in order to make a greater achievement." (8:14)

As well, improvement seeking was associated with a pursuit of perfection, professionalism, or mastering techniques or skills:

When you entered into a handstand position, most athletes bent their elbows...This was something ordinary. And we shouldn't accept that mediocrity. Unless you go beyond the mediocre levels, you won't get an extraordinary score. It means that ordinary practice only produces an ordinary performance...I couldn't stand this bending elbow thing...Because I believed this technique showed its beauty and powerfulness only if you could straighten up your elbows. (22:3)

"...I want to try and master such and such techniques, too."...I had such a desire. (22:4)

Self-directedness. Self-directedness refers to unsolicited or self-imposed participation in sport-related activities and/or taking charge of overall aspects of one's performance and behaviors. A number of athletes (n=6) reported the importance of self-directedness, including three subordinate aspects: being self-motivated, self-disciplined, and the irrelevance of conformity.

Some athletes (n=3) discussed the importance of being capable of finding motivation, enthusiasm, or interest in making progress and in any sport-related activities on their own initiative, particularly in practice:

In any domain whether sports or academic areas, I think too many people are engaging in it with a passive attitude. They first begin with personal motive. But as the time goes by, they start to do just what somebody tells them to do. You must have an attitude that you do it for yourself, not for somebody else. Otherwise, when things get tough they begin to say: "I want to quit," or "I'm sick and tired of this sport." (8:15)

It's almost impossible to reach the highest level in sports if a person isn't willing to improve himself by himself...because sports literally involves so much in the way of dealing with demands, intensity, and pain. (4:11b)

The importance of self-discipline, meaning the capability of imposing on oneself the necessary discipline for daily training and life in general was reported by four athletes:

Unless you are capable of disciplining yourself, and not being driven to do so by coaches, it's difficult to be successful. (6:12-13b)

You need a serious attitude toward your sport. To accomplish the highest level of success, you must have a life centered around sport. Otherwise, you won't make it because it's not that easy to survive in a sport circuit without the mental toughness to discipline yourself. (24:16)

Fulfil your practice time...There are lots of sloppy guys around me. Of course there are times I goof off, but basically I hate fooling around like that. I don't feel good about myself unless I fulfil my practice time. (10:14b)

Never take a day for granted. (5:11)

One athlete mentioned the irrelevance of conformity, in other words, the importance of having autonomy or independence:

You don't have to conform yourself to the ways of others. Because you are in a competitive world, all you have to do is to improve yourself. (10:14)

In addition to the importance of self-directedness, some athletes also discussed the importance of receptiveness to others' opinions.

Openness to others' opinions. Two athletes reported the importance of openness to others' opinions or receptiveness to other's criticism in maximizing learning opportunities and preventing them from becoming conceited or over-confident:

You must be receptive...It's whether or not you are able to absorb others' opinions openly. Be open to everything and then you can sort out the good apples from the bad. (24:16)

If you are open to other's opinions, things should go all right. I mean, because only once athletes reach a certain level, do they start to act on their own authority. (10:14)

Focus. Only one athlete mentioned focusing as a mental element that was essential in athletic success, although some other athletes touched upon it in discussions on mental approaches to practice and competitions:

Focus, this is something absolutely necessary, no matter what sport. (4:11)

Desire of recognition. One athlete revealed that his desire to earn public recognition or attention was one of the factors, that kept him in a competitive circuit:

Everybody must have some sort of desire to get recognition, whether they admit it or not. So there's been such a desire inside of me all the time, too. (13:4)

The mental elements identified so far were associated with athletes' internal factors. Athletes also acknowledged that external factors played an essential role.

Support from others. Two athletes reported that having good coaches and/or supportive people surrounding them was an important factor that nurtured their success:

My high school coach was a real great person. He always talked to me about such goals [to be a champion]...Also he always encouraged me saying: "You can do it!". I think it was a big thing to me. (5:3b)

Fun experiences in the early stages of career. Two athletes found that having fun experiences, or developing positive feelings or excitement about sports was fundamental in the early stages of a career, particularly for those of young ages:

When they are kids, it's mainly whether or not they are having fun. Whether they can find it enjoyable to master skills. (22:18)

You can't tell kids: "Go for the Olympics," when they just get started. "Have fun with

{sport}!" That's all. (6:13)

In summary, this section presented 13 mental elements that the highly successful athletes felt were essential in reaching athletic excellence. Most of the elements identified were associated with athletes' personal factors, while a few were related to nurturing or developmental factors. With regard to the personal factors, the findings revealed that not only certain qualities of a person were perceived to be important (e.g., goal conscious, positive, self-directed, improvement seeker, focused, & open to others' opinions), but also their feelings and emotions (e.g., a desire of winning or recognition, hating to lose or to give up, & love of sports) involved in their sports were found to be the essential ingredients of excellence.

Comprehensive Interpretation

The third part of this chapter was organized to conceptualize the mental factors associated with athletic excellence identified in the previous part, based on the researcher's interpretation. This section presents a conceptual model regarding the path to reaching athletic excellence.

The process of creating graphic representations of conceptual models or integrating basic material to a conceptual framework is called "cognitive mapping" (Eden, Jones, & Sims, 1983). Cognitive mapping is defined by Jones (1985) as "a method of modelling persons' belief in diagrammatic form" (p. 59). He also describes two main elements of a cognitive map as: "persons' concepts of ideas in the form of descriptions of entities, abstract or concrete, in the situation being considered; and beliefs or theories about the relationships between them" (p. 60). Miles and Huberman (1994) mentioned that models that have been proposed in the existing studies take a variety of shapes, including a literal "tree" model suggested by Wolcott (1992) in his overview of qualitative strategies.

Having acknowledged these notions, a model was suggested as a graphic representation to explain the phenomenon of reaching athletic excellence with respect to relevant mental aspects (Figure 1). The tree shape of the diagram was selected so as to best illustrate the core concepts.

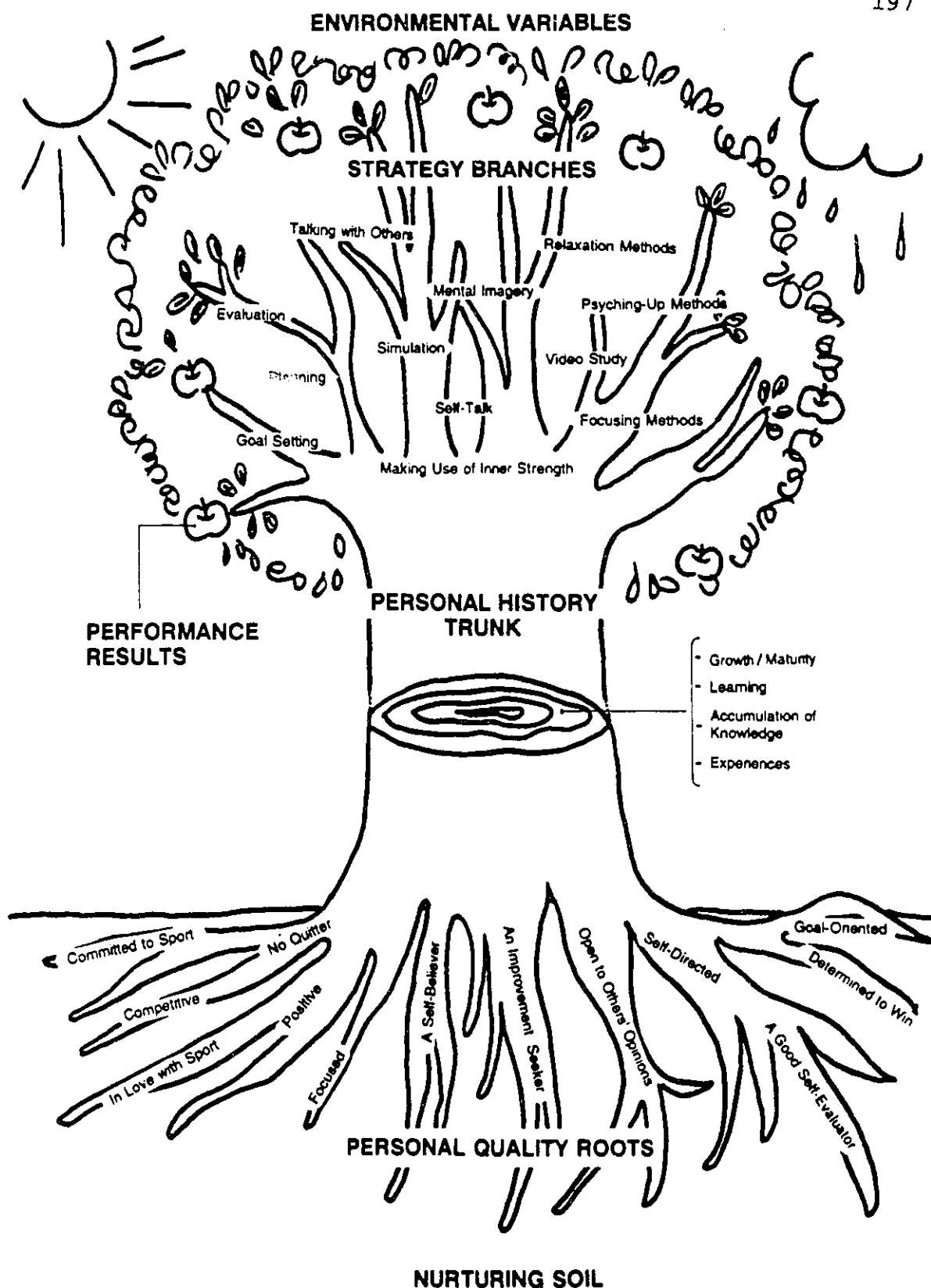


Figure 1. A Tree Model of Reaching Athletic Excellence

A Tree Model of Reaching Athletic Excellence

The model, namely "A tree model of reaching athletic excellence", was a synthesis of the various mental aspects that explain the phenomenon of athletic excellence with a holistic view (Figure 1). This model was derived from the overall interview findings. The aim of this model was to assemble as many mental components as possible that contributed to the phenomenon of athletic success, while providing a sense of wholeness. The tree model was comprised of six main components: a root component reflecting the personal qualities of an athlete, a trunk component to display the growing process, a branch component of mental techniques, a soil component of nurturing elements, a climate component evidencing the environmental variables, and a fruit component of performance results. The whole tree represents the persons' world contributing to generate the phenomenon of athletic excellence.

First, the root component represented personal qualities of an athlete that the highest achievers were likely to possess. When the root (person's qualities as an athlete) was weak, the whole tree (a pursuit of success) could become unstable or collapse. Certain qualities, supporting or allowing athletes to reach the highest levels of success, were common to most athletes. Based upon the interview findings of this study, specifically themes included in two main topic areas of mental elements essential to athletes success and athletes' views of their sports and lives, 13 root qualities were suggested in this model-- An exceptional athlete is 1) committed to his/her sport, 2) in love with his/her sport, 3) positive, 4) goal-oriented, 5) self-directed, 6) determined to win, 7) a self-believer, 8) competitive, 9) no quitter, 10) an improvement seeker, 11) a good self-evaluator, 12) open to others' opinions, and 13) focused.

Elite athletes took advantage of these mental skills, just as they did with physical or

technical skills, to demonstrate the high quality of performance. However, some athletes might not display all of these qualities, yet were able to achieve the highest levels of success. As well, the athletes did not necessarily have all of these qualities from the day they started, but rather they seemed to develop them in the course of a career out of necessity. It was vital for an athlete to perfect at least some of these elements to accomplish athletic success at the international levels.

The second component of the tree model was the trunk, which represented the growing process of an athlete. This component was derived mainly from athletes' discussions on growing to be an exceptional athlete. The trunk component signified a construct of personal history for an athlete, including experiences, learning, accumulation of knowledge, growth, and maturity. To give a clearer picture, if a tree were cut at a cross section, one would see there the annual rings. It could instantly provide us ideas about the growing process of the tree, some years greater than others. This notion was applicable to the athletes. The rings symbolized the ups and downs of an athletes' career, depending upon various contributing factors, as well as growth and maturity of an athlete as a whole. The trunk component reflected an athlete's treasury of self-knowledge which was accumulated through years of experience. Knowledge is an integral part of the growing process. Growth and maturity were the product of various learning experiences (e.g., success, failure, & difficult/uplifting moments). Both positive and negative experiences were indispensable factors in an athlete's growth and maturity. Because no two athletes had identical personal experiences or career histories, each athlete created a unique trunk component of his/her own. Further, the birth of all the greatest sports achievements originated from the tiny entity of an

athlete being, just like all trees begin their lives with a seed, whether or not growing big in the future.

The third component of the tree model were the branches, representing mental strategies that facilitated an athlete's progress, successful performance, and exceptional achievement. This component was derived from four main themes in the interview findings: psychological enhancement strategies, growing to be an exceptional athlete, and mental approaches to practice as well as competitions. Twelve psychological strategies were suggested in this model: 1) goal setting, 2) planning, 3) evaluation, 4) simulation, 5) mental imagery, 6) video study, 7) making use of inner strength, 8) self-talk, 9) talking with others, 10) relaxation, 11) psyching-up, and 12) focusing. Whereas the first nine strategies were specific, the last three strategies were more abstract requiring concrete methods to make use of the strategies. These techniques were basically the tools or instrumental aids to psychologically enhance an athlete's performance or to improve the immediate situation. These strategies were developed and acquired through various experiences, as levels of physical and technical skills progressed. For more effective use, elite athletes established a system of their own, personalizing the techniques in ways they felt necessary or suitable for their benefit. Although successful athletes did not necessarily utilize all of these techniques, it appeared that the more an athlete took advantage of these techniques, and the more they personalized the techniques, the greater the benefit and effectiveness of techniques for performance enhancement. The fourth component of the tree model was the soil component. The soil component represented nurturing by the surroundings of the athlete. Although the soil (nurturing) was not a part of a tree construct (personal factors), it was

inseparable from the growth of the tree (athlete's growth). The main groups of people who were positively influential to athletes' growth included coaches, family, teammates, members of workplace or school and people from their home towns. Those who made a positive contribution provided athletes with various types of support: emotional, technical, informational, motivational, financial, material and environmental arrangement type of support. When athletes were undernourished or malnourished by their surroundings, the chance of their growth and success was hindered.

The fifth component, the climate component represented situational or conditional or environmental variables in which an athlete was placed and had to deal with. Environmental variables refer to any incidents, events, circumstances or any other aspects of life that might condition or control an athlete's performance. This might include injuries; changes, traumas or turmoil in life; past performance results; competition schedules; daily living schedules; sport politics; a school system; or practice environment (facilities, regulations, team mood, levels of the team & coaching styles). While some of these conditions were within an athlete's control, some were not. Further, some were a series of continuous daily matters and some others were accidental matters. Nevertheless, an athlete had to adjust himself/herself to the immediate conditions or given situations, and to make the best possible result.

The sixth component of the model, the fruit component represented an athlete's performance results, achievement or success levels of the year or of the overall career. The quality of the fruits were a product or a composite of various factors, such as an athlete's growth and history, person's qualities, the use of mental techniques, nurturing, and environmental/situational variables. The success levels could be assessed based upon the

quantity and the quality of the product. Obviously, the productivity (an athlete's achievement) was deemed to be higher when the fruit harvest was greater (a greater number of wins), and when the fruits were sweeter and juicier (a higher quality of performance content).

To better understand the phenomenon of athletic excellence from a mental point of view, the tree model suggested several areas or dimensions that potentially determine the success in sports. Specifically, it consisted of six areas, including the person's qualities, a growing process, mental skills, a support system, environmental/situational variables, and performance results. The first three components (root, trunk, & branch) were the personal factors, while the next two components (soil & climate) were the social factors, and the last component (fruit), being performance results which were dependent on the other five. All the six areas were essential factors in explaining athletic success. In turn, the phenomenon of athletic success, with respect to mental aspects, was explained by the dynamics of these six components.

With particular regard to the three personal factors (personal qualities, athlete's history, & mental skills), the degree of maturity or development in these three factors usually correlated. To give an example using the tree concept, as a tree grew older, the trunk became taller and bigger (a sign of growth and maturity), the root would be accordingly longer, thicker and more complex (more developed personal qualities), and branches would be well extended (more developed mental techniques). Likewise, when an athlete had reached the mastery stage and developed one of the three factors to a great extent, usually the other two were correspondingly developed as well.

It must be clarified that this model does not weigh the significance of the

components/elements. In other words, it does not explain what will happen if one component/element is missing, or whether other components/elements will compensate for the missing one. Also, it does not suggest that all the very best athletes attained these components/elements. We must remember that individual differences exist even among the elite. The model is only to suggest what may be able to contribute to achieving athletic success. Thus, in a sense, the model is an idealistic representation of the phenomenon.

There are obviously differences between a tree and an athlete yet there are also some conceptual similarities. The tree model attempted to capture the "big picture" of the phenomenon of reaching athletic excellence from a mental perspective. This model was specifically constructed based upon the interview data of a limited sample, nine Japanese male athletes.

CHAPTER 5

GENERAL DISCUSSION

The present chapter was organized to recapitulate major findings of the study, to further examine and compare results with existing literature regarding the phenomenon of athletic excellence, and to suggest avenues for future research. Discussion consists of 10 topics, including: 1) initial sport experience, 2) developing a total commitment to sport and excellence, 3) difficult experiences, 4) personal experience as a source of learning and growth, 5) nurturing factors, 6) perceived value of sport, 7) personal qualities of highly successful athletes, 8) practice, 9) mental preparation for competition, and 10) psychological enhancement strategies. This classification of topic areas does not totally correspond to that of the previous chapter. It was rather regrouped for the convenience of further discussions. Each of the ten topics will be discussed with regard to the objectives of the present section.

Initial Sport Experience

Styles of and/or reasons for taking up organized sports activities reported by the athletes varied. However, it generally fell into Prus's (1984) and Stevenson's (1990) classification. Their classification consisted of four aspects: sponsored recruitment (others being willing to support an athlete's involvement in a sport or providing opportunities that encourage the athlete's involvement), solicited recruitment (a formal recruitment by an individual who actively encourage an athlete to join the team), coerced recruitment (a situation in which an athlete is virtually forced to begin his/her participation in a sport), and seekership (a situation in which an athlete becomes involved in a sport based on his/her volition to strive to achieve a goal or satisfy a need).

A considerable number of studies have also attempted to identify reasons for youths' sport participation from a motivational point of view (e.g., Gill, Gross, & Huddleston, 1983; Gould, Feltz, & Weiss, 1985; Klint & Weiss, 1986; Longhurst & Spink, 1987; McPherson, Marteniuk, Tihanyi, & Clark, 1980; Passer, 1981). These studies identified moderately common motives underlying young people's sport involvement, including: affiliation, skill development, excitement/challenge, success/status, fitness, fun, and energy release. Although the current results seem to be generally consistent with these studies, it is difficult to directly compare the current cases with these previous findings for two reasons. First, previous findings do not necessarily reflect the initial motives for sport participation. Second, these motivational-based explanations are useful only based on the assumption that the athletes initiate their sport participation on their own, excluding such cases as being forced or strongly influenced by other individuals.

Aside from the influence of peers, friends, and significant adults, the media, particularly television broadcasting, has now become a part of young people's lives and cultures, and has a powerful influence on their shaping of value or belief systems and attitudes (Le Clair, 1992; Eccles & Harrold, 1991). It could thus enhance their interest in sports and influence their decisions with regard to sport participation.

Factors underlying individuals' choice of sport participation seem to be diverse. The factors may include age, styles or circumstances of introduction, influence of significant others, perceived competence, expectancies, skill level, abilities, previous sports experience, goals of participation, commitment, motivation, degree of enjoyment/satisfaction, personal relationships in the team. If these possible mediating variables are taken into account, it may

better explain the individual's choices in sport involvement.

The major finding of this study regarding initial perceptions of one's sport was that the majority of the youngsters found their new experiences to be enjoyable, playful, or exciting in terms of competing, winning, learning and demonstrating their skills and exploring and discovering facets of their respective sports. This corroborated views of Bloom (1985), Kalinowski (1985), Klint and Weiss (1987), Monsaas (1985), and Sosniak (1990).

On the other hand, there were some athletes who did not find their initial experiences to be enjoyable. Those athletes were commonly the ones starting a sport at the older ages (high school) in this study. This was mainly due to abrupt intensive training, team responsibility as a junior student, and dislike of the team mood (senior-junior relationship, which is perhaps peculiar to Japanese culture). However, these athletes obviously did not leave their sports, and eventually became the world's greatest athletes. For these athletes, commitment/motivation to success, or the pride of not giving up, followed later by perceived competence, were the factors that determined their decision to stay on the team. This generally corroborated Burton and Martens's (1986) findings in their examination of the sources of persistency as a part of their testing of Nicholls's (1984) motivational theory, that those who persisted in the sport perceived higher ability and higher future expectancies, and placed greater value on success. Thibaut and Kelly (1959) also explain individual persistency in sport in their social exchange model that persistence is determined by the levels of satisfaction the individuals perceived, comparing the balance between rewards and costs involved in sport participation with other alternatives (changing sport or not participating in sport).

Developing a Total Commitment to Sport and Excellence

In examining a process of reaching athletic excellence, one of the central issues is athletes' commitment to or persistence in sport and success. As with the findings of Kalinowski (1985), Monsaas (1985), and Sosniak (1990), most athletes in this study did not begin with the idea of becoming great athletes. They simply enjoyed such things as the excitement and challenge of a new experience. However, some athletes did dream of or were consciously committed to becoming successful from the start. Although Kalinowski (1985), Monsaas (1985), and Stevenson (1990) commonly reported that elite athletes generally did not make a commitment to a sport at the introductory stage, the present study showed that this was not always the case. In the current study, it is noticed that those athletes who started a sport at an older age made a total commitment to the sport or to winning competitions at high levels from the start. Once the athletes began formal training on a regular basis or once they made a commitment to staying in the sport, they soon showed their remarkable talent, the view parallels those of Kalinowski (1985) and Monsaas (1985). It was virtually the point of no return for all.

Commitment to sport was closely related to realization of future success. Realization of future success often made athletes conscious of making commitment to sport and success and having life centering around sport. For most athletes, realization of their capability to make international success did not emerge until they won or performed well at the national junior championships, regardless of previous small successes. Kalinowski stated in his discussion of discovering talent in swimmers that, from a third parties' point of view, such as that of coaches or parents, so called "talent" of a child was hardly apparent before he/she

made the national level of competitions. Children often set their standard of success based on significant adults' views, comments, feedback, and expectancies (Bloom, 1985; Eccles & Harold, 1991; Duda, 1993; Roberts, 1993). That may be the reason why the majority of the athletes in this study reported that winning the junior nationals was a major source of realization of potential. In fact, a few athletes reported that coaches' advice or encouragement regarding their capability to achieve future success was the major source of their realization.

Sources of realization were not only attributable to winning or performing well at competitions and/or to coaches' advice, but also to gaining a sense of competence through practicing with the internationally successful athletes of the time. Even though all but one athlete did not mention it, all of the study participants were exposed to a highly competitive environment and derived great advantages from it, for the following two reasons. First, Japanese teams in judo, wrestling, and gymnastics are relatively successful in international competitions, facilitating access to true international levels and allowing competing against highly skilled athletes while at home. Second, the athletes belong(ed) to some of the highest profile teams in the country in their respective sports, affording them better coaching and facilities, a better quality of practice with highly skilled athletes, and a highly motivating team mood with everyone working hard toward competition. Being immersed in this kind of environment, athletes naturally set very high standards of excellence, which were often defined in terms of winning major international titles. This parallels views of several researchers (Bloom, 1985; Duda, 1993; Ericsson et al., 1993) that environmental variables can influence the levels of success.

Moreover, some athletes commented that realization did not occur until they had

actually attained international achievements (e.g., winning the Olympics or the world championship). Rather, they believed, or tried to believe, that their success was the result of accumulated small successes in a step-by-step manner, from lower to higher levels of competition. This view was echoed in a statement by Mary T. Meagher, a world record holder in swimming, cited in Chambliss's document (1989).

From the time the athletes began formal training, a certain level of commitment was required, in that practice at the junior ages was typically very intensive (Kalinowski, 1985; Monsaas, 1985). As one athlete commented: "practice in high school was hell. I competed in {sport} for 12 years overall, and I think all the basics were built during these three years. More than 80 % of my {sport} development. Stuff like physical strength, endurance, and attitude" (32:2). Thus, joining and staying in the highly organized teams and enduring severe training was a demanding task, which naturally required high levels of commitment from the athletes. At this point, however, some athletes felt obligated to practice, or felt they were driven by the coaches, indicating that the utmost commitment was usually yet to come. Total commitment in sport often emerged upon their realization of their potential for future international success. This realization seem to dramatically increase athletes' motivation, competence, confidence, and self-directedness, which parallels a view of Bloom (1985). Sport then truly became the center of their lives. Realization helped the athletes learn to be fully aware of their goals and to find meaning in their efforts and hard work. They became devoted to their sport, physically and emotionally, in the pursuit of their dreams. In general, commitment seems to have quite naturally developed through a repetition of success, recognition, and competition-oriented team environment (Kalinowski, 1985; Monsaas, 1985).

It is suggested that various variables are to be taken into account in determining the time frame (immediacy) within which athletes made a total commitment to their respective sports. The variables may included expectancies of success, the people involved in the sport (Stevenson, 1990), age and the style of introduction to the sport, motives for sport participation, desire for success, previous sport experience in other sports, personal histories in the sport and a team environment.

Whereas all but one athlete displayed high levels of commitment in the mastery stage, one athlete commented that sports was not the only thing in his life now. Interestingly, he is currently struggling (consecutive losses). It is speculated that the loss of commitment contributes directly to the declining of his performance and losses (Locke & Latham, 1990). There are other empirical studies clearly indicating the importance of commitment in athletic success (McCaffrey & Orlick, 1989; Orlick & Lee-Gartner, 1993; Orlick & Partington, 1988). The current study detailed specific behaviors indicating the athletes' high levels of commitment, such behaviors as sacrificing other aspects of life for sport, always thinking about or being aware of sport, prioritizing sport in life, extracting the sources of improvement from daily life experiences, and training during free time. These behaviors or actions are the ultimate proof of commitment (Salancik, 1977 cited in Locke and Latham, 1990).

As a synthesis displaying a construct of commitment, Scanlan, Carpenter, Schmidt, Simons, and Keeler (1993) have recently proposed the sport commitment model. They defined sport commitment as "psychological construct representing the desire and resolve to continue sport participation" (p.6). Scanlan and her colleagues explained that commitment to sport involvement is determined by a function of sport enjoyment, involvement alternatives,

personal investments, involvement opportunities, and social constraints. However, one most important factor seems to be missing in this model. That is, the perceived importance or personal meaning of sport, a passion for sport, or a sense of caring about sport. These emotional states are much more intense than a sense of attraction or enjoyment, and thus should be distinguished from sport enjoyment, "a positive affective response to the sport experience that reflects generalized feelings such as pleasure, liking, and fun" (p.6).

Having reviewed the development of commitment, commitment is herein defined as emotional sparks or passion for sport and/or a willingness or determination to exert effort for a chosen task or goal and to persist in the effort even in the face of obstacles. Substantial actions and behaviors should verify such passion, determination, or willingness. Although making the initial commitment to sport is an essential ingredient of success, more importantly, constantly maintaining or re-building commitment seems to be the key to persistence. Achieving an exceptional accomplishment is possible only when lengthy commitment is made and quality effort is exerted over extended periods of time (Anshel, 1990; Bloom, 1985; Ericsson et al., 1993). Further, athletic success was in reality attributable to resolving struggles each and every day. As Chambliss (1989) noted: "confronted with the day-to-day reality of climbing out of bed, to go and jump in cold water," (p.83) to begin with. Since very little research has examined the issues related to success dream, realization of potential, and development of commitment among the highest achievers, this will be an area of great potential for further investigation in understanding development of highly successful athletes.

Difficult Experiences

Virtually all elite athletes encounter some degree of hardship over the span of their

careers (Chambliss, 1989). The findings of the current study identified four major sources of difficulties experienced during athletes' careers: defeats, injuries, daily training, and life changes. This indicates that difficulties were experienced from both competition and non-competition sources, corroborating a view of Scanlan and her colleagues.

The existing information related to this topic is often found in the area of sport stress or anxiety studies. Although most research studying issues related to stress in sports has been focused on children and youths, a few researchers examined that of elite athletes, commonly identifying sources of stress (Allison & Meyer, 1988; Gould, Horn, & Spreeman, 1983; Gould et al., 1993b; Scanlan et al., 1991). However, some variations exist among the findings of these expert research including this. The specific focuses of study, the types of sports, the amateur/professional status of athletes, and varied specificity of categories may provide plausible explanations for these variations. Nevertheless, a few studies identified consistent results with the current study in terms of defeats (Scanlan et al., 1991; Gould et al., 1983) and injuries (Allison & Meyer, 1988; Côté, 1993; Lindner & Caine, 1992). Life stress was identified in only one previous study (Scanlan et al., 1991). Daily practice is a source that has not been mentioned previously.

It appears that there is a relationship between life change/stress and injuries/performance decrement. Four athletes (44%) experienced injuries or performance decrement in the face of other life stressors. This relatively positive relationship between negative life event and injury, increase in anxiety state, or performance decrement is supported by several studies (Holmes 1970; Passer & Seese, 1983; Kerr & Minden, 1988). Kerr and Minden (1988) suggested two plausible explanations of the life stress-injury relationship: a lack of

attention/concentration, and a lack of energy resources.

This study also identified coping strategies corresponded to the sources of major difficulties. Six main resources were found to have contributed to athletes' decisions to go on with their sport careers: drawing on inner strength, others' support, reading motivational material, goals, performing well, and shifting of attitude to the positive. Furthermore, two general characteristics of successful coping were positive attitude toward overcoming and goal awareness. Regardless of types of difficulties, these are the suggested coping strategies that can be commonly used as far as psychological enhancement is concerned. There seem to be, however, more suitable and specific coping methods for each type of difficulty. For example, coping methods of injuries differ from those of daily struggles, and healing imagery is effective for enhanced recovery from injury (Green, 1993; Ievleva & Orlick, 1993), whereas imagery may not be as effective in coping with daily struggles. Although there is a growing amount of literature suggesting the use of cognitive strategies for coping with difficulties, they typically describe strategies either specific to injuries and anxiety, or psychological enhancement strategies in general. On the whole, the most commonly suggested psychological intervention resources are: relaxation methods, mental imagery, goal setting, thought/attention control, self-talk, and establishing a support system (Fisher, 1990; Hardy & Crace, 1993; Smith, Scott, & Wiese, 1990; Vealey, 1988). The strategies similar to those of this study are goals, others' support, thought/attention control, and self-talk.

With particular regard to coping with injuries, it should be noted that speed of recovery, often related to perceived difficulty, depends on diverse mediating variables, including: the individuals' history of injury, the nature of the injury, the type of sport, the skill

level, the individuals' degree of experience in sport, the time of the season and the context in which the injury occurred, the athlete's age, life style habits, abilities and skills, personality structure, coping skills, motivational factors, the perceived importance of sport participation, the presence of life stressors, team position, reaction of others, and a support system (Williams & Roepke, 1993; Pargman, 1993; Henderson & Carroll, 1993; Weiss & Troxell, 1986; Yaffe, 1983; Sanderson, 1978; Nideffer, 1989). Some of these variables appear to be relevant to coping with other types of difficulties as well.

Researchers sometimes project the image of elite athletes as superhuman being who never experience problems, even in the face of sacrifices or struggles (Gould. et al., 1993). Chambliss (1989) asserted: "It is incorrect to believe that top athletes suffer great sacrifices to achieve their goals. Often, they don't see what they do as sacrificial at all. They like it" (p.74). However, the researcher believes that this is not always the case. In fact, most athletes in the current study did not find joy in their struggles while sacrificing other aspects of their lives. They, however, did try to see the positive side of things in order to keep up their motivation by finding meaning in their sustained efforts. Ultimately, the cost of the sacrifices was compensated for the benefits of achieving success. The sum of the efforts required was regarded to be meaningful by athletes looking back after retirement, but often not by those in the middle of struggles.

Finally, since major difficulties can result in decrement of athletes' motivation and performance or ultimately withdrawal from sport participation, further research providing guidelines for sources of major difficulties likely to be experienced in an athlete's career and their coping methods will be useful.

Personal Experience as a Source of Learning and Growth

In the examination of athletes' career histories, the first thing noticed was the uniqueness of various aspects of the individual athletes' careers. These ranged from the ways they became involved in sports, dreams of their success, realization of potential for future success, competition outcomes, hardships encountered, their glorious times, learning styles, cognitive styles, technical styles, ways of approaching practice and competitions, psychological enhancement strategies, choices of teams (schools), to living and team environments. This individual uniqueness was recognized by Stevenson (1990) in his examination of world-class athletes' careers: "the enormous diversity in the career paths of the individual athletes. Each career seemed so unique that it was difficult to see any commonalities" (p. 241). These individual differences are attributable to uniqueness of personal experiences.

While undergoing unique personal experiences, the athletes constantly learned the essence of excellence through day-to-day living, and grew over extended years in their pursuit of exceptional achievement. Learning becomes greater when a person is in touch with the personal levels of realities. David (1990) clearly stated that the view that it takes more than explanations to learn things in life:

From touching a hot stove we learn to avoid heated objects. From dating we learn about male-female relationships. Every day we have experiences from which to learn...Seeing a movie about love is not the same as experiencing love. Hearing a lecture on friendship is not the same as having friend. (p.19)

It is quite surprising that virtually no sport researcher has looked into the notion of learning experience, although a few researchers imply its importance (Bloom, 1985; Orlick, 1990; Pargman, 1993). Although research on knowledge building or information processing

in relation to skill acquisition or motor learning, from a cognitive/perceptual psychological approach, has been quite popular in the domain of sport studies (Chamberlin & Lee, 1993; Glencross, 1993; Magill, 1993; McCullagh, 1993; Tenenbaum, & Bar-Eli, 1993; Wrisberg, 1993), most studies explain the mechanism of learning, in terms of the concepts of problem solving, error detection, and memory, giving little or no attention to the concept of experiencing itself from a developmental point of view. Since personal experience is inseparable from any individual's learning and growth (David, 1990; Doherty, Mentkowski, & Conrad, 1978; Hutchings & Wutzdorff, 1988; Kolb, 1984), this is a very important topic to be examined if we wish to gain a better understanding of athletes' development. Kolb expresses:

...this learning process must be reimbued with the texture and feeling of human experiences shared and interpreted through dialogue with one another....We lost touch with our own experience as the source of personal learning and development...(p.2)

Existing body of knowledge on experiential learning comes from the domain of education. Kolb (1984) stated with respect to human development: "learning is a process of creating knowledge" (p.36). The consensus of common notions of the experiential learning theory can be as follows: learning is grounded in experience, and is not an outcome, but a continuous process. Learning involves transactions between the person (perception) and the environment (situation) (Kolb, 1984).

This study touched upon the specific consequences of experience. Although they may not be exhaustive, it was found that experience can lead a person to three main consequences: evaluation, familiarization, and discovery. These three aspects are generally consistent with the existing literature (Kolb, 1984; Hutchings & Wutzdorff, 1988).

With regard to a relationship between amount or accumulation of experiences and

learning, Ericsson and his colleagues (1993) asserted that at least 10 years of accumulated experience (practice and preparation) in the domain is necessary prior to making international achievement. Moreover, they also believe that the highest achievers start practice at an early age. However, the present study exhibited that it is not always the case. For example, one athlete began his sport at the age of 16, and won the world championship only after five years of experience in the sport. More importantly, he continued to win the world titles in three consecutive world championships, proving that the initial win was not just a matter of luck.

Ericsson and his colleagues' belief that an early start brings a definite advantage may be theoretically correct, based on the assumption that if two individuals of the same age differ dramatically in their accumulated practice time, and both maintain the same weekly schedule, the less trained individual simply cannot catch up with the more experienced one. As Ericsson et al. point out that resource, effort, and motivational constraints may have an effect on this notion, we also must keep in our mind that no two individuals, in reality, are exposed to the identical practice environment and support systems, and attain the identical physical/psychological attributes and the same level of aspiration, which are generally called individual differences.

To summarize, personal experience seems to be a central aspect of learning and growth, since all types of human activity must involve experiencing. Personal experience provides us with the most direct impact on learning lessons in our lives, although formation of a cognitive and behavioral style and belief system may be greatly influenced by significant individuals in a developmental process. These personal experiences are unique to each individual since no two people think, feel, and act in the same way. This suggests that

individual differences should be taken into account in the process of developing athletes.

Nurturing Factors

Exceptional achievement in sport did not result simply from the extensive work and experience of the individual athlete, but also developed from the athlete's surroundings.

Several researchers have demonstrated both positive and negative influence of third parties, particularly that of coaches and parents (Bloom, 1985; Burton & Martens, 1986; Ericsson et al., 1993; Howe, 1990; Nelson, 1987; Orlick & Botterill, 1975; Robinson & Carron, 1982).

Ericsson and his associates (1993) noted with regard to benefit of support provided by significant adults for facilitating development of young athletes' potential: "being told by parents or teachers that they are talented...most likely increases motivation, boosts self-confidence, and protects young performers against doubts about eventual success during ups and downs of the extended preparation" (p.399).

Athletes in the present study listed several types of support received from different groups of people. Those individuals who contributed to athletes' growth are classified here into four main groups, including: coaches, family, teammates, and significant others.

Different types of support were provided by different groups of people. Rosenfeld and his associates (1989) found that coaches and teammates provided types of support requiring expertise in sports, whereas friends and parents provided complementary support not requiring expertise. The present study generally corroborated their view.

Coaches were the individuals who most directly influenced development of athletes. They can be further divided into two groups: personal coaches, and national coaches. While the athletes saw the national coaches playing only official roles and expressed either negative

or neutral opinions about them, opinions about their personal coaches were generally positive and their work was appreciated. This view is generally consistent with that of Orlick and Partington (1988) in their study with Olympians.

During the long course of a career, athletes usually encountered several personal coaches. Among those, athletes considered one or two coaches to be most influential. A few athletes have pointed out the importance of enjoyable experience in their sports provided by coaches in the early stage of their careers. This view is supported by several researchers (Bloom, 1985; Orlick & Botterill, 1975). Bloom stated that highly successful individuals typically encountered teachers, in the early stage of their careers, who provided them with a sense of fun, enjoyment, or excitement in the field, rather than who focused on objective or outcome-oriented coaching.

Types of coaches' support the athletes most commonly reported were technical advice or instruction, and emotional support (e.g., encouragement, advice, motivational talks). Coaches' belief influenced athletes' belief in their own abilities as well as their performance (Bloom, 1985; Eccles & Harold, 1991; Ericsson et al., 1993; Roberts, 1993). Athletes, at the mastery stage, generally appreciated coaching styles marked by a mutually trusting relationship, open communication, and openness to giving them independence, the finding is consistent with Hemery (1986) and Orlick and Partington (1988).

The influence of family was rather indirect in terms of athletic development. Some athletes appreciated their parents for creating an optimal home environment, for nutritional consideration in childhood, and for their financial support. For the most part, however, indirect means of support, such as not urging the athlete to quit sport and/or not interfering

with what they did, seemed to be most significant. Surprisingly, on the other hand, not all the athletes received positive support and encouragement from their parents. Some parents opposed their children's decisions about pursuing a sports career, mainly due to concern over injuries. This is consistent with the findings of Burton and Martens (1986) and Scanlan and her colleagues (1991). Bloom's study (1985) strongly demonstrated that parents provided their children with extensive direct support, such as appraisals, transportation, travelling, financial resources, hand-in-hand lessons, monitoring children's progress, finding coaches, and so forth. These aspects were not found to be relevant to the current study. Further, parents' beliefs seem to influence children's shaping of belief systems and attitudes in general, the view is consistent with several researchers (Bloom, 1985; Eccles & Harold, 1991; Ericsson et al., 1993; Roberts, 1993). Motivational support and technical advice were also provided by siblings, usually older ones.

Perceived support of teammates was generally indirect. Teammates played the role of motivator in daily practice rather than helper. In some cases, emotional support (encouragement) was provided by teammates in the face of difficulties, such as injuries. At the developmental stages, the athletes saw other, often older, competitors who excelled at and had expertise in their sports as their role models, and set those competitors as goals to be achieved (Sosniak, 1990). At the mastery stage, teammates are still compelling and provides a rigorous standard in practice (Kalinowski, 1985). But in the meanwhile, once they became role models for others, demonstrating the importance of hard work to achieve success to others was one of the resources that helped them maintain intensive training.

The athletes also reported some negative aspects of teammates or team mood. These

were teammates not showing caring for fellow team members even in case of sickness, interfering, or creating a bad team mood. However, the athletes avoided problems and dealt with the situations positively. Although negative observation regarding teammates are relatively scarce, study of Scanlan et al. (1991) showed a few examples as above.

There were also other significant contributors to athletes' success. These were mainly colleagues, school directors, and students. These people generally provided such types of support as arranging a good practice environment or emotional support.

On the whole, although technical, material, or informational support were provided with relative consistency, emotional support was increased when athletes were faced with struggles. The current study showed that social support was one of the most effective coping resources in the face of difficult experiences. When the individuals were dealing with difficulties, frustration, or disappointment, a few words of encouragement or others expressing a sense of caring could mend their feelings of vulnerability, and help them find strength to go on with their athletic lives (Sosniak, 1990).

Nevertheless, a certain degree of support is found to be necessary to reach the highest levels of success in sports. Coaches, family, teammates, and other surroundings can play significant roles in developing athletes' true potential. Types of support or roles of these groups of people in different phases of career were not determined in the present study. Further research focusing on both positive and negative aspects of third parties will certainly help better understand effective nurturing.

Perceived Value of Sport

The elite Japanese athletes involved in this study perceived sport participation to be

meaningful for various specific reasons. Included were: being involved with one's sport, being part of an elite, being in a competitive sports circuit, testing and discovering one's potential, challenging oneself to achieve one's goals, thrills experiencing not available in ordinary life, gaining fulfilment from practice, and self-growth. The higher order categories were not developed here. It is because no direct question was addressed during the interviews to identify the sources of perceived value in sport, and thus the amount of collected data was insufficient, as limited sources were reported. Perhaps, however, they can be further categorized into six broader groups: challenge (one's goal & one's own potential), distinctive thrills, fulfilment, specialness, perceived self-esteem/competence, and self-growth (sport skills & personal aspects).

These findings on sources of the meaningfulness/value of sport participation are related to other studies focusing on the sources of enjoyment or motivation in sport. However, most studies addressing sources of sport enjoyment are based on the data derived from youth sport participants (Csikszentmihalyi, 1975; Harris, 1984; Scanlan & Lewthwaite, 1986; Wankel & Kreisel, 1985). There are a few studies focusing on elite athletes (Allison & Meyer, 1988; Gould et al., 1993; Scanlan et al., 1989). Scanlan and her colleagues (1989) extensively conducted interviews with 26 elite figure skaters to identify sources of enjoyment. The study sample comprised athletes across three levels of achievement: Olympic/world championship participants, national senior level competitors and national junior/novice level competitors. Having conducted inductive content analysis, four major sources of enjoyment were identified: social/life opportunities (friendship opportunities through skating, opportunities afforded by going to competitions and touring & family/coach relationship),

perceived competence (mastery, competitive achievement, performance achievement & demonstration of athletic ability), social recognition of competence (achievement recognition & performance recognition), the act of skating (movement/sensation of skating, self-expression/creativity, athleticism of skating & flow/peak experiences). In addition, a sense of specialness and coping through skating were clustered in an extra category of special cases. Further, their factor analysis revealed that four sources (subcategories) of enjoyment reported by Olympic/world championship participants were higher in frequency than two other subgroups. These four were: performance achievement, performance recognition, self-expression/creativity, and a sense of specialness.

Gould and his associates (1993a) examined the experience of 17 national figure skating champions and identified four main positive aspects accompanying national champion status. This study was limited in the scope in terms of describing the sources of enjoyment, value, or meaning of sport involvement, since its focus dwelt specifically on those aspects related to competitions. However, it provided detailed information of elite athletes' perception of the value of winning/defending national titles. The four categories included were: positive emotional experience at national championships, positive effects on self-esteem from winning/defending, national champion perks, and positive affect and growth in self-awareness from losing the title.

In Allison and Meyer's study (1988) of 20 female tennis professionals, four major sources of enjoyment were identified: winning, self-esteem, travel, and competition. However, the transferability (external validity) of the study is questionable in that no definitions of these terms and supporting evidence were provided.

It is difficult to compare the findings of these studies with that of the current study due to varied specificity and focus of the studies. However, the findings of the current study showed at least some agreement with some of the findings of each study. As Scanlan et al (1989) demonstrated, sources of enjoyment may vary among athletes with different levels of accomplishment, as well as with athletes' age, skill levels, experience in sport, types of sport and their degree of commitment to sport. Further research will determine such variables as well as different sources of enjoyment or value of sport among different groups of athletes.

Personal Qualities of Highly Successful Athletes

Thirteen personal qualities typical among the highest achievers in sports were identified. A highly successful athlete: 1) is committed, 2) is determined to win, 3) hates to lose (competitive), 4) hates to give up (persistent), 5) is clearly aware of his/her goals, 6) loves his/her sport, 7) is positive, 8) is constantly seeking improvement, 9) is self-directed, 10) is open to others' opinions, 11) is focused, 12) is a self-believer, and 13) is a good self-evaluator.

A considerable number of studies have attempted to identify either personal attributes of elite performers or elements essential to successful performance (e.g., Bloom, 1985; Kalinowski, 1985; Loehr, 1983; Mahoney et al., 1987; Monsaas, 1985; Nelson, 1987; Orlick, 1992; Williams & Krane, 1993). In general, 10 elements identified are coherent with those identified in previous studies: *commitment to sport* (Anshel, 1990; Bloom, 1985; Matsuda et al., 1980-1982; McCaffrey & Orlick, 1989; Nelson, 1987; Orlick, 1992; Orlick & Lee-Gartner, 1993; Orlick & Partington, 1988; Williams & Krane, 1993), *determination to win* (Anshel, 1990; Hemery, 1986; Kalinowski, 1985; Monsaas, 1985; Orlick & Lee-Gartner,

1993), *hating to lose/competitiveness* (Hemery, 1986; Kalinowski, 1985; Monsaas, 1985), *belief/confidence* (Anshel, 1990; Nelson, 1987; Orlick, 1992; Williams & Krane, 1993), *goal awareness* (Howe, 1990; Matsuda et al., 1980-1982; McCaffrey & Orlick, 1989; Orlick & Partington, 1988), *positive attitude* (Orlick, 1992; Orlick & Lee-Gartner, 1993; Williams & Krane, 1993), *self-directedness* (Howe, 1990; Kalinowski, 1985; Monsaas, 1985; Nelson, 1987; Orlick, 1990), *focus* (Howe, 1990; Matsuda et al., 1980-1982; McCaffrey & Orlick, 1989; Orlick, 1992; Williams & Krane, 1993), *openness to others' opinions* (Nelson, 1987), and *constructive evaluation* (Nelson, 1987; Orlick, 1992).

Thus, three elements, including hating to give up, love for his/her sport, and seeking improvement, are generally found to be the elements that have not been directly mentioned as essential aspects in the earlier studies. It is surprising that these three aspects were overlooked previously, as they are more or less socially accepted notions of success. With specific regard to loving one's sport, a comment of one athlete, who was interviewed but not included in this study, is noteworthy: "You can't be successful only with your love for sport, but you can't go on without it."

Some of the athletes' qualities listed may be inherent or may have become second nature at very young ages. Some others may have been developed as a result of experience and growth. It is perhaps impossible to distinguish what skills are innate or acquired once athletes started formal training (Ericsson et al., 1993). However, some studies exhibited what qualities may be innate or developed earlier and what are likely to be gradually developed and acquired later in the career as skill levels are progressed and experience and personal growth is lived. For instance, in studies by Kalinowski (1985) and Monsaas (1985) regarding

talent development in young people, they noted that parents of talented athletes often found their children to be highly determined, aggressive, competitive, willing to work hard, and hated to lose from the quite early stages, compared to other siblings and peers.

On the other hand, Kalinowski (1985), Monsaas (1985), and Côté (1993) found that the athletes learned to be self-directed at the later stage of their careers. Athletes learned to take charge of their performance and to have more say about their practice, preparation, and performance, based on their knowledge gained through various past experiences. The current study also supports the view that athletes obtain self-directedness at later stages of careers. Specifically, study participants indicated three conditions in which athletes are likely to learn the importance of self-directedness and to act: 1) when they have reached certain skill levels, such as national or international levels, 2) when they have entered the senior national team, or 3) upon graduating from university, commonly 22 years in age which often requires young adults to become more independent and self-sufficient in life in general. This is slightly later than what Côté (1993) suggested in his study on gymnasts; around 18-19 years old for male gymnasts and 14-15 years old for female gymnasts. The plausible explanation for this difference is the types of sport, the variation in social structure as well as mentality among different nations, and no consistent measurement of self-directedness. Nevertheless, the essence of excellence was learned and the elite qualities were developed and refined over extended periods of time while meeting and overcoming various demands, involving competitive sports participation (Chambliss, 1989; Orlick & Partington, 1988). Although not all the elite athletes may not attain the elite qualities suggested in sport studies, it is found to be vital to perfect at least some of these elements to accomplish athletic excellence.

Practice

The athletes learned, at some point in their careers, to practice more for quality than for quantity. Increasing amounts of work does not increase the training productivity, but an increase in the quality of practice does (Chambliss, 1989). The athletes need to adhere to effective quality practice to maximize the rate of progress (Feigley, 1984; Nelson, 1987; Orlick & Partington, 1988; McCaffrey & Orlick, 1989). Athletes' attempts to enhance training effectiveness are an extremely important aspect in that effortful intensive practice is not inherently enjoyable (Ericsson et al., 1993; Howe, 1990). Nelson (1987), based on his personal experiences, also suggested six aspects associated with effective practice, including: planning/being organized, monitoring progress/ evaluation, including variety in training, avoiding overtraining, taking advantage of learning opportunities/being knowledgeable, and setting goals.

Four main factors contributing to effective practice were identified here: self-directed practice (active participation), purposeful practice, quality practice, and controlling practice. A primary aspect underlying effective practice identified was athletes' active attitude toward practice participation. Without unsolicited interest, the productivity of practice is assumed to be low. Athletes' active search for the ways to improve performance and willingness to improve training methods are closely related to making progress (Ericsson et al., 1993). They often develop habits of being taught and advised, particularly while attending school and sport programs, due to the nature of teacher-student relationships. However, athletes eventually learned to become independent of their coaches, to be actively involved in or to organize practice, and to be responsible for their own sport activities and lives (Bloom, 1985), while

recognizing the importance of appreciating personal differences, establishing personal styles, and keeping things in control. Eminent performance requires that the individual go beyond the available knowledge supplied by coaches, to produce a unique contribution to the domain (Ericsson et al., 1993).

The athletes employed organizational skills and preparation to achieve the best possible practice. It is assumed that there is an enormous difference in the efficiency of practice between knowing and not knowing what one should be working on. For elite athletes, the ultimate purposes of training were to demonstrate higher quality of performance at competitions, to win competitions, or to achieve chosen goals. With the preparation, athletes strove to maximize the intensity and focus of practice by pushing toward and expanding their limits, working harder than others, and practicing as if in competition. This may be called "positive training stress" (Silva, 1990), defined as "to extend the boundaries of a capacity in such a manner that an increase in the capacity is gained via positive adaptation to the imposed demands" (p.7). Similar to the findings of the study, a few researchers have suggested mental strategies that can enhance the quality of practice, such as clear daily goals, imagery, simulation, individualized practice plans, and evaluation (McCaffrey & Orlick, 1989; Nelson, 1987; Orlick & Partington, 1988).

Aside from the importance of quality intensive training, as this study revealed, a considerable number of researchers have stressed the necessity of avoiding overtraining (Nelson, 1987; Rushall, 1989; Silva, 1990; Ericsson et al., 1993; Orlick, 1992; Feigley, 1984). Controlling practice did not only protect athletes from psychological burnout (Feigley, 1984), but also from suffering injuries (Ericsson, 1993; Kerr & Minden, 1988). Negative training

stress occurs when an imbalance exists between imposed training demands and coping capacities (Silva, 1990). Feigley (1984) pointed out that increased awareness to detect warning signals of physical/psychological disorders is important, so that athletes can make adjustments before minor problems become chronic or major. The athletes in current study learned to be aware of the importance of avoiding overtraining through various experiences, and selected appropriate practice methods according to daily physical and psychological conditions.

Seemingly effortless outstanding performance does not simply occur either by accident or through short-cuts. It is rather a compilation of years of experience and practice in the field. Athletes must undergo intensive training for extended periods of time prior to making remarkable success (Ericsson et al., 1993). The athletes in the study emphasized making constant efforts, on a daily basis, in each and every practice session. Flawless performances we observe are only a result of accumulated subtle improvements and learning. Further, what differentiates between highest achievers and mediocre athletes is a matter of consistency in and commitment to high quality practice on a daily basis (Chambliss, 1989). As skill levels progress, the rate of improvement and learning becomes less dramatic or obvious. Particularly at the mastery level, athletes usually work toward improving consistency and precision, and refining previously learned skills rather than learning new skills (Bloom, 1985). Thus, increased awareness of the importance of subtle improvements can prevent athletes from becoming demotivated in their sport activities in the face of daily struggles (Feigley, 1984).

For elite athletes, practice did not only mean physical and technical improvement, but

also psychological improvement. The athletes in the study habitualized winning attitude, positiveness, belief, ways of dealing with intensity, or behaviors of not to wander through daily awareness, knowing that habitual attitudes and behaviors are directly linked with performance at competitions.

There is a scarcity of practical information on mental aspects of practice to date. Considering that athletes virtually engage in practice over years day after day, this topic should not be overlooked. It is suggested that researchers recognize that exceptional achievement requires experience and practice in the long-run (Ericsson et al., 1993), and further investigate to gain a deeper understanding of this area.

Mental Preparation for Competition

The present study identified seven main factors related to successful mental preparation for competition, based on a comparison of successful and poor performances. The factors were consistent with a number of studies determining factors of successful performance and/or peak performance. Those factors included: *determination to win* (Gould et al., 1992a; Mahoney et al., 1987; Sugihara & Fujimaki, 1986; Orlick, 1992; Orlick & Partington, 1988; Watabe & Hoshino, 1985; Williams & Krane, 1993, mentioning similar concepts), *full confidence* (Gould et al., 1992a, 1992b; Loehr, 1983; Mahoney et al., 1987; Orlick, 1992; Orlick & Partington, 1988; Sugihara & Fujimaki, 1988; Williams & Krane, 1993), *positive mindset* (Gould et al., 1992a, 1992b; Loehr, 1983; Orlick, 1992; Orlick & Partington, 1988; Watabe & Hoshino, 1985; Williams & Krane, 1993), *dealing with mental blocks* (Mahoney et al., 1987; McCaffrey & Orlick, 1989; Orlick, 1992; Orlick & Partington, 1988; Sugihara & Fujimaki, 1988; Williams & Krane, 1993), *sufficient/proper preparation*

(Mahoney et al., 1987; Orlick & Partington, 1988), *full focus* (Gould et al., 1992a, 1992b; Loehr, 1983; Mahoney et al., 1987; Orlick, 1992; Orlick & Partington, 1988; Sugihara & Fujimaki, 1988; Williams & Krane, 1993), and *readiness* (Orlick, 1992; Orlick & Partington, 1988). The present study also revealed that these seven factors are interactive rather than independent in terms of successful mental preparation.

Preparation for a major competition, particularly for the Olympics, usually starts a quite long time before. The athletes typically planned practice as well as competition schedules carefully in the long-term. Physical/technical preparation and mental preparation proceed simultaneously in a practical sense. The quality and length of preparation for a specific competition was greatly influenced by the perceived importance of winning the event. When an athlete was totally determined to win, preparation was often thorough. A loss or lack of commitment/motivation may come from various sources. Ogilvie (1990) believes that this generally results from a sense of complacency resulting from playing against less competent opponents. This view was generally supported in the current study. Gould and his colleagues (1993a) revealed a drop in motivation intensity due to burnout, which was not found to be significant in the current study. The present study rather added three new plausible explanations to a drop in motivation: a loss of goals, a loss of interest to winning, and other conditional variables such as life changes or injuries.

Winning determination is closely connected to self-confidence or belief. Positive belief in one's own ability reinforces one's determination. In contrary, when self-confidence is low or too high, determination is often low. Low confidence typically resulted from insufficient preparation. On the other hand, the group of athletes clearly outlined that over-

confidence was due to underestimating opponents' abilities or overestimating their own abilities, causing poor performance, although only a few studies have reported the negative effect of over-confidence (Burton, 1989; Ogilvie, 1990). It is speculated that the emergence of over-confidence as a significant factor is due to the fact that the present study participants are the world's very best athletes and that they have demonstrated repeatedly and constantly their superiority to others throughout their athletic careers, which is similar to Ogilvie's explanation.

In addition to winning determination, this confident level was also related to athlete's mindset and focus level. Highly confident state, along with winning determination, was often accompanied by positive, intense or aggressive mindset. Ideally, determination, confidence, positive mindset and focus are pulled out together, leading to a readiness state. If these elements are lost, however, effective coping actions must be taken to bring on the best possible result. This dealing with mental blocks is a particularly critical issue, in that mental blocks most directly influence the success level of performance, and could hinder athletes in performing to their potential (Orlick & Partington, 1988).

The ultimate purpose of whole preparation is to be physically and mentally ready to perform. At the moment a performance is about to begin, full focus and readiness are all that matter. Readiness is a mental state that an athlete must reach in order to perform at their best under given circumstances, regardless of the situation or what has happened beforehand. Other mental factors, such as determination, confidence, mindset, dealing with mental blocks, and overall preparation determine athletes' readiness state. In the simplest form, leaving distractions behind and focusing on the task at hand while carrying a positive frame of mind

as well as a willingness to give one's best seem to be the keys to mental readiness. If an athlete reaches readiness much earlier, it is important to maintain those right feelings until the time finally comes. If any problem exists or emerges, it is critical to deal with it in a concrete way and get back on the right track as quickly as possible, particularly on the day of competition.

Methods of on-site preparation employed by an athlete were generally the same for all levels of competitions. Although several researchers found that "adhering to the routine or plan" is the one of the most effective ways of preparation (Gould et al., 1993a; Orlick, 1986), this was not significant in this study. Some athletes rather commented that following their instincts spontaneously was the best method. It is assumed, however, that this spontaneity method is possible only if athletes have had extensive experiences in the field. Nevertheless, each one of the individuals established his own means of preparation. Finding what works best for oneself through experiences and personalizing preparation are important aspects contributing to success (Eklund, et al., 1993).

Psychological Enhancement Strategies

The attempt was made here to reconcile a variety of mental strategies and diverse contexts, and to comprehensively outline the main objectives and applications of the psychological enhancement strategies. Nine main strategies are identified: goal setting, planning, evaluation, simulation, imagery, video study, drawing on inner strength, self-talk, and talking with others. Main objectives of these mental strategies identified are: motivation enhancement, confidence enhancement, skill development, performance readiness, relaxing, psyching-up, and focusing/refocusing.

Much literature discussing the implementation of psychological enhancement strategies is now available. The following seven strategies are the ones most commonly suggested: *imagery* (e.g., Albinson & Bull, 1988; Botterill & Winston, 1984; Cox, 1994; Gould, et al., 1989; Murphy & Jowdy, 1992; Orlick, 1990; Suinn, 1993; Vealey, 1986), *goal setting* (e.g., Albinson & Bull, 1988; Botterill & Winston, 1984; Burton, 1992, 1993; Cox, 1994; Gould, et al., 1989; Harris & Harris, 1984; McCaffery & Orlick, 1989; Orlick, 1986, 1990), *planning* (e.g., Albinson & Bull, 1988; Botterill & Winston, 1984; McCaffery & Orlick, 1989; Orlick, 1986, 1990), *relaxation* (e.g., Albinson & Bull, 1988; Cox, 1994; Gould, et al., 1989; Harris, 1986; Harris & Harris, 1984; Orlick, 1990; Suinn, 1983), *energizing* (e.g., Albinson & Bull, 1988; Botterill & Winston, 1984; Cox, 1994; Gould, et al., 1989; Harris, 1986; Orlick, 1990; Suinn, 1983), *focusing* (e.g., Albinson & Bull, 1988; Botterill & Winston, 1984; Cox, 1994; Gould, et al., 1989; Harris & Harris, 1984; Orlick, 1986, 1990; Schmid & Peper, 1986; Suinn, 1983), and *positive self-talk* (e.g., Bunker et al., 1993; Gould, et al., 1989; Harris & Harris, 1984; Suinn, 1983). These strategies are consistent with those identified in this study. Simulation, video study, drawing on inner strength and talking with others are the strategies not commonly mentioned in previously studies. Relaxation, energizing, and focusing were classified as objectives of mental strategies here, in that they are not the strategies themselves but are the mental states to be reached, requiring other concrete methods.

Objectives of mental strategies have been minimally discussed in the existing literature as well (Cox, 1994; Horn, 1992; Singer et al., 1993; Williams & krane, 1993). Since motivation, confidence, focus, controlling arousal (relaxation, energizing), and skill

acquisition are popular research areas in the domain of sport psychology, the implementation of mental strategies that enhance performance are often included in each topic area, together with descriptions of theories and the mechanisms of these core concepts. Thus, the greater part of the literature discusses separate objectives and strategies, rather than comprehensively displaying a variety of same. The following pages will present brief discussion on each of the nine mental strategies identified.

Goal Setting/ Goal Awareness

The group of athletes regularly set goals for their performance enhancement, as goal setting is one of the strategies most commonly studied and suggested in existing literature (e.g., Albinson & Bull, 1988; Burton, 1992, 1993; Botterill & Winston, 1984; Cox, 1994; Gould, et al., 1989; Harris & Harris, 1984; McCaffery & Orlick, 1989; Orlick, 1986, 1990). The current study dealt with two main attributes of goals: time span of goals, and goal content. The major findings centering on the effective use of goal setting were that elite athletes simultaneously set multiple goals with varied goals contents (e.g., outcome-based competition goal, performance-based training goal), while combining different time spans of goals (e.g., dream goal, annual, monthly, weekly, daily goals). In the long-run, goals were set and achieved in a step-by-step manner, from the lower levels to the higher, as skill levels progressed. These views are generally consistent with the descriptions of goal attributes and effective use of goals identified in the earlier studies (Burton, 1993; Chambliss, 1989; Locke & Latham, 1990).

Further, the present study found that goal setting or awareness served several different objectives, such as enhancing motivation, skill development, performance readiness, psyching-

up, and focusing/refocusing, whereas most researchers view goal setting simply as a motivational strategy (Burton, 1993).

Planning

Current study identified two types of planning: 1) planning training/competition schedules, and 2) planning coping (mental preparation) strategy for competition, corroborating several researchers' suggestion (Albinson & Bull, 1988; Botterill & Winston, 1984; Gould, et al., 1992a; McCaffrey & Orlick, 1989; Orlick, 1986; Orlick & Partington, 1988). Athletes may benefit from planning for motivation enhancement, skill development, performance readiness, and focusing/refocusing.

Evaluation

Content of evaluation reported was diverse, including competition evaluation, daily practice evaluation, life-style evaluation, nutritional evaluation, technical evaluation, measurement of physical capacities, and assessment of mental preparation. Major evaluation followed competitions. The main purposes of evaluation found were motivation enhancement and skill development.

Positive constructive evaluation not only helps athletes become aware of their needs and improve their performance, but also greatly neutralizes pain in the face of discouragement or disappointment, so that they do not undermine their confidence or competence (Tihanyi & Baumann, 1989; Burton, 1993). They generally responded to failure in a positive and constructive way, so that they maintain high confidence, remain task focused, and develop effective problem solving strategies.

Although evaluation is directly linked to further progress and improvements, it often

seems to be overlooked. In fact, some athletes indicated the neglect of evaluation, despite acknowledging its importance. Although all nine study participants were incredibly outstanding individuals, if we must find the difference among them, those athletes who had relatively less reputation for success or were facing struggles were the ones who did not constantly evaluate their performances. Although this does not precisely determine the contribution of evaluation to success, it implies its importance. Future research should be able to determine the relationship between evaluation and success levels.

Simulation

Simulation was found to be the most practical technique to prepare for a competition. It can enhance not only physical and technical preparation, but also mental preparation. Simulation may serve for enhancing motivation, confidence, skill development, and performance readiness. Although simulation has not received much attention from sport researchers, simulation techniques seem to be regularly employed in the actual training field among the elite (Ochiai & Unno, 1985; Orlick & Partington, 1988). Orlick and Partington in their study with Olympic athletes showed that the best athlete extensively used simulation training. Ochiai and Unno also revealed that athletes often integrated mental training practice into physical/technical training, such as in a form of simulation.

Chamberlin and Lee (1993) briefly reviewed the topic area of simulation and suggested the possibility of effective implementation of simulation in sport contexts. Although available information on simulation is mainly based upon studies experimenting with videographic simulator, and application of such mechanical devices in sport contexts is questionable, Chamberlin and Lee pointed out an interesting notion of fidelity. In their

review, three types of fidelity are mentioned: physical fidelity (the degree to which a simulator looks like), functional fidelity (the degree to which a simulator feels like), and psychological fidelity (the degree to which the learner perceives the simulator to be realistic). The consensus of minimal number of simulation studies generally suggest that high fidelity simulation is more effective for advanced performers (Andrews, 1988; Chamberlin & Lee, 1993; Lintern, Sheppard, Parker, Yates, & Nolan, 1989).

Where simulation takes place without mechanical devices, it is assumed that the quality of simulation is mediated by the person's imagery skills, and belief in its effectiveness or a serious attitude toward simulation training. Future research may investigate the relationship between the types of fidelity and the rate of enhanced performance in the sport context, together with further uncovering of mediating variables, such as types of knowledge and ability of the performer (Chamberlin & Lee, 1993), on the effectiveness of simulation.

Mental Imagery

As much as the use of mental imagery is discussed in the existing literature (e.g., Albinson & Bull, 1988; Bacon, 1990; Botterill & Winston, 1984; Cox, 1994; Gould, et al., 1989; Harris & Harris, 1984; Murphy & Jowdy, 1992; Orlick, 1990; Suinn, 1993; Vealey, 1986), the group of athletes employed mental imagery quite often. The main issues regarding imagery discussed in the current study are the nature of imagery, imagery perspectives, imagery content, availability of imagery, and objectives of imagery.

The nature of imagery is defined by the types of sensation accompanying during imagery. The athletes reported visual, auditory, and most commonly kinesthetic sensations. The nature of imagery also interacted with imagery perspectives. External imagery (viewing

oneself as an external observer) involved a visual sense, whereas internal imagery (experiencing a imaginary scene from an internal perspective) mainly involved a kinesthetic sense. Several studies concluded that more highly skilled athletes tended to imagine with an internal perspective and less skilled athletes with an external perspective (Mahoney & Avenier, 1977; Rotella et al., 1980; Mahoney et al., 1987). However, the present study revealed that some elite athletes utilized both internal and external imagery alternatively. In other words, a choice of which imagery perspective to employ was made according to the types of imagery content.

With regard to the content of imagery, certain patterns have emerged, corresponding with immediate circumstances. While in a pre-competition setting, imagery content was typically related to rehearsing performance or winning images. On the other hand, at times other than pre-competition, content included were either skill development imagery (e.g., skill correction/improvement/ refinement in general, tactical improvement against specific opponents or competition settings) or non-skill developmental imagery (any images that facilitate such things as relaxation, psyching-up, or motivation enhancement).

One of the greatest advantages of mental imagery found was its availability of application, requiring no instrument but a person's mind, thus making it employable anytime, anywhere. Athletes may benefit from mental imagery by practicing skills in their minds in the absence of actual physical movements, thus without unnecessary physical exhaustion.

Another great characteristic of mental imagery found was its versatility of application. Imagery can be used in many different ways that go beyond simple practice of sports skills (Murphy & Jowdy, 1992). Main objectives that may be achieved through the use of imagery

are motivation enhancement, confidence enhancement, skill development, performance readiness, relaxing, and psyching-up. The findings of the present study are generally consistent with Murphy and Jowdy's (1992) description of imagery applications.

Video Study

With the increased availability of video equipment, video is becoming an essential part of performance evaluation in the practice field, particularly at the elite level, although little research has been conducted to examine the effective use of video in sport domain (Magill, 1993). Elite athletes primarily utilized it to analyze their own and/or other competitors' technical skills. Watching good performances (their own or others') can also increase positive feelings and images (McCullagh, 1993). Positive reinforcement of desired target behaviors or performance through repeated observation of oneself on videotapes was also suggested in a concept of self-modelling (Dowrick & Dove, 1980). Magill (1993) briefly mentioned the use of video in his review on augment feedback in skill acquisition. He outlined several interesting points indicating that skill level mediates the degree of learning from videotape replay. Beginners need the aid of an instructor to point out information from the videotape replay. The use of videotape can benefit those aspects of a performance that can be readily observed and corrected on the basis of visual information. Thus, video study may facilitate motivation enhancement, confidence enhancement, and skill development. Future research should be able to provide deeper understanding of the effective use of videos in sports.

Drawing on Inner Strength

Drawing on inner strength is a cognitive strategy uniquely identified in the current

study. Although it may not appear to be a strategy, the advantage of inner strength should not be taken for granted. The power of inner strength can best be illuminated in examples of athletes' winning despite physical disadvantages or disabilities (Ericsson et al., 1993). Furthermore, the fact that some of the athletes' most significant reasons for staying in their pursuit were associated with inner strength (e.g., a desire to win, a feeling of hate to lose, hate to give up, pride, a desire of recognition), clearly shows its relevance. Inner strength is a resource tapped within us and drawn when we must withstand and overcome difficulties or persevere in the effort. Inner strength may be reinforced by past experiences, absorbing knowledge, or building personal philosophies. At times when we are out of resources, support from others may help regain our strength. Although individuals may intentionally take advantage of such inner resource as an implemental aid through awareness, it is speculated that inner strength is drawn spontaneously in most cases. Drawing on inner strength may help athletes enhance motivation, confidence, performance readiness, psyching-up, or focusing/refocusing. Thus, it is suggested here that individuals' awareness of inner strength can potentially be an effective cognitive strategy. However, further investigation is needed to clarify and better define the notion and the effectiveness of inner strength as a cognitive strategy.

Positive Self-Talk

Self-talk is the most regular employed strategy, although athletes may not have been even aware of this inner dialogue affecting their feelings and actions (Bunker et al., 1993). Perhaps because of its availability, self-talk is found to be the most multi-purpose strategy. Positive self-talk may enhance motivation, confidence, skill development, readiness, focus,

relaxation, psyching-up, and focus, whereas negative self-talk may just do the opposite.

Athletes should be able to benefit from being aware of and controlling thoughts, from the negative to the positive, enhancing performance and personal growth (Bunker et al., 1993).

Talking With Others

Talking with others was mentioned as a fairly significant strategy by the group of athletes, although it has virtually been unmentioned as a cognitive strategy in existing sports literature. Purposes and styles of talk differ depending on the circumstances. Athletes may look for conversation with others to enhance their motivation, confidence, skill development, performance readiness, relaxing/relieving stress, or psyching-up. Accordingly, the content of talk can vary from consultation, advice, pep-talks, casual talks, to jokes and laughter. The effectiveness of conversation as a cognitive strategy may depend on desirability of their parties' communication styles to an individual athlete under the circumstance. For example, one athlete may prefer to receive a pep-talk before performance, another may prefer to have a casual chat. A coach's pep-talk may work well for increased motivation, confidence, and readiness before a competition, but it may not work as well when an athlete is feeling down. He/she may only need someone who just listens to his/her feelings and lends a shoulder to cry on.

Concluding Remarks

Examination of the phenomenon of reaching athletic excellence revealed that success in sports is a complex, multi-faceted phenomenon, achieved over long periods of time. A holistic approach enabled the researcher to discover some new notions. Descriptions of experiences, feelings, and insights reported by highly successful individuals added breadth and

depth to the understanding of athletic excellence. It is believed that the conceptual model suggested here, regarding mental factors of athletic excellence can contribute to the body of knowledge in this area.

Based on the present interview findings and the existing body of knowledge in the domain, a working definition of 'athletic excellence' is suggested here. Athletic excellence can be defined as a phenomenon in which high quality performances or highly skilled performances are demonstrated consistently by an athlete, who is capable of handling physical, technical, and mental demands specific to his/her sport. This phenomenon is typically generated through a personal ongoing growing process, accumulation of experiences, learning, daily training and effort, assimilation of developed mental skills as well as performance strategies. This process occurs along with the contribution of people surrounding an athlete in an environment that facilitates his/her growth and enhanced performance. This definition reflects an integrative model of paths to reaching athletic excellence.

Most of the existing relevant knowledge on the phenomenon of athletic excellence comes from the North American literature. The fact that many of the present findings derived from Japanese athletes are consistent with those findings indicates that the general principles underlying athletic excellence seem to be global. Of course, there are cultural differences among nations, such as social systems or standards, value systems, moral systems, general mentalities, educational systems, sports organization systems, or sports administration systems. However, this study displayed that excellence goes beyond social-cultural differences, and can be reached by any one who activates certain qualities, assuming that a sufficient sports environment and facilities are supplied.

This research not only answered a number of questions but identified several areas that need further investigation. The main questions include the need to 1) examine the phenomenon of excellence from a developmental point of view, 2) conduct longitudinal studies, 3) examine the phenomenon of excellence in a context-specific focus, such as practice or competition, 4) determine the role of personal experience in learning and growth, 5) gain further understanding on effective practice, and 6) advance our understanding of psychological enhancement strategies.

Finally, the comments from the athletes who participated in this study indicated that studies of this nature can not only help us to better understand athletic excellence, but also help the athletes become more aware of the importance of the mental aspects of excellence, to review important mental aspects of their sports, and clarify what needs to be improved by simply responding to the interview questions. Although helping athletes was not a primary purpose of the study, this spin-off was a great strength of the present study. It is hoped that the information gained will help not only sport psychologists and sport researchers, but will also help many athletes and coaches, to improve their performance and enrich their personal growth.

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APPENDIX A: ATHLETE INFORMATION SHEET

Name : _____ Gender : M / F Age : _____

Your Sport Background

1. Your Sport (Please indicate particular events, too) : _____

2. Present Team : _____

3. Age Started Your Sport : _____

4. Years of Competition Experience : _____ Years

5. Frequency of practice per week : Season _____ Days, Off Season _____ Days

6. Amount of practice time per day : Season _____
Off Season _____

7. Have you ever had a sportpsych consultant? YES / NO

If YES, a) Individually or For a Team ?

b) Duration of time you had the consultant : _____

c) What type of consulting or mental training did you get?

Please provide me with an address so that I can send you a copy of your interview transcript for verification of the content.

Address : _____

Telephone Number : (____) _____ - _____

Please check here if you would like to receive a summary of the results once they are completed. Yes / No.

THANK YOU FOR YOUR PARTICIPATION IN THE RESEARCH !!

APPENDIX B: ATHLETE INTERVIEW GUIDE

THE PATH TO EXCELLENCE

1. How did you first get involved in your sport?
2. During your early experience in your sport, did you dream about being a great athlete?
3. How would you describe your early experience of your sport?
4. Was there a particular moment when you realized that you would reach the level at which you are now?
If yes, a) How?/ b) When?/ c) How did it affect your life?
5. Was there one experience or a period of time in your career that was very difficult?
If yes, a) What was it?/ b) How did you overcome it ?/ c) What did you learn from it?
6. What made you keep pursuing your sport career?
7. How would you describe your life as a competitive athlete now?

PRACTICE

9. How do you mentally approach practice sessions? (Probe for details in terms of focus, intensity, & creativity)
1) Normally, 2) When you do not feel like doing it
Do you think that you train differently than other athletes in your sport?
10. Do you have specific ways of preparing yourself to get the most out of a practice session?
(Probe for details about source of ideas, actual strategies, and mental training practices in terms of when, where, how often, with whom with what success)

Do you practice with specific regard to competition?
(e.g.prepare for specific opponents or specific competitions)
11. How do you push yourself when you are faced with difficult 1)physical (e.g. extreme fatigue or pain)/ 2)psychological (e.g., fear or mental blocks) demands during training?
(Probe for specific examples)

Do the strategies work well?
Do you do the same in competitions?

COMPETITION

12. In the case of the 1992 Olympics (or another major international competition),
 - a) when did you first start to prepare yourself for the competition?
 - b) what sorts of things did you do to build up your mental readiness for the day of competition?
 (Probe for details about source of ideas, actual strategies, and mental training practices in terms of when, where, how often, with whom & with what success)
 - c) what sorts of things did you do to mentally prepare yourself a week prior to the day of competition?
 - d) when you heard the call for the start (or appropriate phrase), were you ready?
 If not, what could have been done to bring on a better state of readiness?
13. We are interested in the kinds of things that you generally do and think about on the day of the competition.
 - a) How do you start preparing for your event that day?
 - b) Do you usually follow a specific pre-competition routine or have something best work for you to bring your best performance?
 If no, what do you usually do?
 If yes, please outline.
 - c) Did you follow the same procedure at the 1992 Olympics (or another most important competition)? How do you feel about your performance in that competition?
 - d) After a competition, what do you usually do and think?
14. Does your mental preparation differ between national and international competitions?
 If so, how does it differ?
15. What was the highest pressure situation you have faced in competitions?
 Did you handle it well?
 If yes, what did you do to handle it?
 If not, what might have helped?
16. When something unforeseen happens, either before or during your competition(s), how does it affect your performance, for better or worse? How do you deal with it?
 - a) How about when setbacks occur?
 - b) How about when you are faced with loss?

BEST VS WORST PERFORMANCES

17. Take a moment and think about the very best/worst performance of your career to date.
- a) What event was it?
 - b) What were you doing, thinking, or saying to yourself?
 - 1) immediately before the start of your event
 - 2) during the event
 - 3) between specific periods of performance
 - c) What were the major differences between these two performances in your preparation, focus, thinking, or feeling?
 - [d) Why do you think it was your best/worst performances?]

SOCIAL SUPPORT

18. How is your relationship with coach(es)/teammates?
- a) How do coach(es)/teammates affect your performance?
 - Is it supportive/helping or interfering?
 - If they support, what type of support? (e.g., technical, emotional)
 - Do they help your mental readiness? (e.g., self confidence, coping)
 - If they interfere, how do you deal with it?
 - b) To what extent coach(es)/teammates contribute to your success?
 - c) What percentage do you think you are responsible for your performance in practice or competition?
 - If not 100%, who else are responsible for your performance?
19. How is your parents or family's (or somebody equivalent) attitude and support towards you with your sport since you started? What do they do that helps?
20. Are there any other significant people who have been supporting you in pursuing your goals in sport? If so, who and how do they support?

CLOSING QUESTIONS

21. What are the most important mental skills for reaching the highest level in your sport?
22. If I were a talented young athlete from your sport, what kind of advice would you give me to help my pursuit of athletic excellence?
23. What changes should be made in order to improve the readiness of Japanese athletes like you (e.g., within your own situation and within the sport system)?

22. If I were a talented young athlete from your sport, what kind of advice would you give me to help my pursuit of athletic excellence?
23. What changes should be made in order to improve the readiness of Japanese athletes like you (e.g., within your own situation and within the sport system)?
24. Is there anything relating to the mental aspects of excellence that I have missed that you would like to add?
25. Do you think that I have influenced your responses in any way?

APPENDIX C: LETTER OF INTRODUCTION

Dear: Athlete;

Over the last decade several international researchers have been exploring the mental aspects of high performance in sport. For example, 75 Canadian Olympic athletes were interviewed many of whom were Olympic and World Champions. A number of essential mental factors were found to be related to high level of sport performance.

We would now like to conduct a series of interviews with elite Japanese athletes. We are trying to determine the mental skills that are required to perform to one's capacity in major international competitions and mental preparation strategies that may help enhance mental skills and performance.

We are aware that there are considerable demands on your time, but we would very much appreciate if we could arrange for an interview concerning the mental aspects of your sport performance at your earliest convenience. The interview will take approximately one hour. Please find the enclosed the interview questions you will be asked. Following the interview you will receive a copy of your interview transcript in order to validate the content. You will be free to add or delete material to ensure it is accurate and acceptable.

We would like to tape record the interview for the later analysis, but following the completion of the study the audiotape will be destroyed. The individual results will be strictly confidential and your name will not appear in any parts of the presentation of the results. You will have the right to withdraw from the study at any time, as well as refuse to answer any or all parts of the interview. No athletes interviews have ever found the question threatening.

Based on feedback from the international elite athletes, we feel certain that you will find this interview to be an interesting and worthwhile experience. Following the interview we would be happy to share findings of our study on international athletes with you and to answer any questions that you might have.

If you wish to have any further information, do not hesitate to call us. We will be in contact shortly to determine if you are willing to participate in our research. Thank you very much for your consideration of this request.

Yours sincerely,

Kyoko Imai
(043-244-3060)

APPENDIX D: A Sample Interview with Athlete 4

HOW DID YOU FIRST GET INVOLVED IN {SPORT}?

A reason I started playing {sport}? I was tall and big when I was a kid. And I was also a roughneck. I was always making troubles. So my paretns sent me to the club, hoping that I would bahave better if I did {sport}. Actually, just before I started {sport}, there was a kid who didn't want to come to school because of me. People can't probably imagine my childhood from me now, but I was actually pretty bad. Well, I wasn't too too bad, though. I mean I was just rough but not nasty.

WHEN YOU STARTED PLAYING {SPORT}, DID YOU DREAM ABOUT BEING A GREAT ATHLETE LIKE THE LEVEL YOU HAVE ALREADY ACHIEVED?

Not at all. It was just like a play when I started.

SO, YOU WERE JUST HAVING FUN WITH {SPORT}, THAT WAS IT?

I started {sport} when I was ten. And {sport} virtually substituted for other activities or games like wrestling or ball games. It was a play, that's it.

WAS THERE A PARTICULAR MOMENT WHEN YOU REALIZED YOU WOULD REACH THE LEVEL AT WHICH YOU HAVE ACHIEVED?

When I was in grade 6, I became a champion in {prefecture}. Then I was recruited by a junior-high team in {city}. It was a public school. What I didn't realize until when I first got there was that the team had a repetition of success, winning the regular national tournaments in 9 consecutive years. In my first year, we also won the 1st National Junior High Championship as a team. While I was on the team for three years, we won those championships in 3 consecutive years. However, at the beginning on the team, while practicing with senior members, I felt I was just like a baby because they were so tough and strong, regardless the fact that I got into the team after having won the title at the primary school level. I was thrown like a toy. But I was the strongest among the kids of the same age. I also felt huge expectations from my coach, too, because of my earlier success. But anyway, when I first joined the team, I thought: "I think I will be the junior-high champion." Here I'm talking about the team tournament, though [because there was no individual tournament]. In my second and third years, I won all the matches by straight. In that sense, I could say I contributed to the team victory. When I won the national matches uncontested in my second and third years, I thought: "I'm capable of winning the nationals at the high school level as

well as at junior-high for sure. But also I'll be able to go even further." I think it was in my third year, my coach, whom I respected very much, told me: "In your first high school year, you are capable of winning the National Inter-High school Championships in the individual tournament." This meant I would be able to participate in the National Championships in my teens, more precisely in my third high school year. No first-year-student had ever won the high school Championship in the individual tournament in its history. And only three high school students, including me, have successfully participated in the Nationals what's so ever. I was the third one. Nobody hasn't succeeded after all. Anyway, I thought: "This is awesome. But it must be really difficult to achieve it." At the same time I trusted my coach and thought: "But if my coach says so, there is perhaps a chance for me to make it, only if I try my best," and I actually achieved it.

HOW DID IT AFFECT YOUR LIFE, THEN?

...Well, I don't know if the belief itself affected my life, but I would rather say I loved {sport} and I wanted to be stronger so much. That's why {sport} was the center of my life, for sure. What is interesting as I look back on now is what happened at the junior-high ages. I usually came home after practice, had supper, and went to bed. But once in a while when I woke up in the middle of the night, like two or three o'clock...I thought: "I feel like I'm wasting my time if I stay in bed." There was a post with a little corner in my house. I wound a bath towel on the corner of it and then started to practice techniques. It was in my junior-high days. I really wanted to be stronger and I wanted to take the position of the regular member. Also, how can I say, my coach constantly told us that he was coaching {sport} to make us be the best in Japan and in the world. Why I could win the worlds? Because I was very tall and big, but I didn't play {sport} like a big guy. Since my junior-high I was taught to fight against the guys who were bigger than me. As long as I competed at home, most of my opponents were smaller than me. Then, it was easy for me to win if I took advantage of my weight and power. But the problem with this was that I wouldn't be able to win when I fought against bigger ones. It was the weakness of Japan's {sport} in {weight categories} in the world circuit, like at the Olympic games. So, my coach told me that I had to learn how to throw bigger opponents. And I naturally learned to picture that level of competition as my ultimate goal in my mind. Comparing to other junior-high or high school students, I think my dream goal of becoming the best in the world or going to the Olympics, was much clearer than others. Another interesting thing was..there was the National Weight-division Championships in {region} in {prefecture}. My coach took us kids to the stadium and explained [the matches]. Or when the Olympics was broadcasted on TV, he brought his TV to the gym to show us the live program. He told us: "This is the National Championships. Should you watch it." These sorts of things, you know, by watching the highest level of competitions, it made me feel close to that level of competition in my mind. In these ways, my coach implied: "This is our goal, even though we are now at this level. This is the place to go." He indicated where to go. I think my awareness [to win the worlds] must be brought up in this way. Well, this is what I noticed after retirement, by the way. I believe so because I've heard a lot of success stories, commonly saying that you must have clear goals, close

ones and a big one. I also heard that the most successful people have clear images of their success or playing well in competitions. I don't know if my coach was aware of those kinds of thing or he maybe did things just by accident. Nonetheless, I think my coach's attitude influenced me a lot.

WAS THERE A EXPERIENCE OR A PERIOD OF TIME IN YOUR CAREER THAT WAS VERY DIFFICULT?

...Well, I think there are many different kinds of difficulties. But basically I never ever wanted to quit {sport}. I never thought of quitting. And..I think it's partially because I was constantly winning throughout my career. In fact, my winning was much more constant than any other {sport} experts. Now, {athlete},{athlete}, and {retired athlete}, there are several exceptional individuals, but I don't think anybody has won as constantly as I did. I think it's only me who took all the major titles. At the junior-high, I won at the Prefecture, at {Region}, and at the Nationals, and at the highschool level, Prefecture, {Region}, {Region}, and National. I took all the titles whether I participated as a team or as an individual. Everything went so well. But of course, I experienced several difficult periods of time in my career, too. In my first year in junior high, no no, it was the end of the second year, I injured my lower back. I couldn't practice for about 3 months. The second difficult experience was in my second year in high school, I changed high school for the sake of pursuing {sport} career. I left {prefecture} and I moved to {prefecture}. It's usally hard [for this age of child to leave home and be away from his family and friends]. The third difficult experience was losing. I lost 15, 16 or maybe 17 matches in my whole career. All opponents I lost were order than me. I never lost to the same age of opponents. But when I came to {prefecture}, in my second or third high school year, uh? third year, yes, and the first year in the university. During this period of time, within one year and a half, I lost more than ten times to four people. They were the world champions at that time, like {retired athlete}. Every time I tried to knock them down, they sent me flying. I guess it was probably the time when I was running up against a stone wall. After overcoming this barrier, I kept going and going. Another difficulty I experienced was at the Moscow Olympic games. The Olympic boycott was the biggest psychological damage in my career. Lastly, after having won two categories in single World Championship, a year after the {Olympic}, which I won with all my best, my passion for competing was gone for about a year and half. In this time, I also wandered.

THEN, HOW DID YOU OVERCOME EACH OF THOSE DIFFICULT TIMES?

...When I injured it was just..well, my grandpa didn't allow me to practice. We had an argument like, granpa saying: "No way!! No practice!" And I said: "No no, look! I am now running. I can practice!" He went, "Don't be fool!! That's out of the question!!" Anyway, I was forced to stop practicing. But thinking back, his judgement was right. I really wanted to practice but I couldn't. This made me clearly became aware that I shouldn't do this again and I must avoid injuries. He taught me I had to take care of myself, and to recover well when I

get injured. So only thing I could do that time was to wait until my lower back recovered. For the second one, changing my school, this was um..I was told by the person who recruited me: "You won't be stronger than you are now if you stay in {prefecture}. You must look at the worlds." I understood that I 'd better chnage school after all, but I felt sorry to my frieds and coach for leaving, and this feeling still remains now. The next one, when I was beaten over and over, all I had to do was to improve my skills. I wrote down "Beat {Athlete}!" on a peice of paper and stuck it on the wall in my room [laugh]. Whenever I saw the paper, even when I was dead tired when I got home, a feeling of chagrin at the defeat against the guy vividly revived. With that peice of paper it wasn't so difficult to encourage and push myself even harder. Because I'm a kind of guy who is always with full of fight by nature. And I pep talked to myself: "This isn't good enough to beat him!" But basically I could overcome this barrier just by improving my skills. The Moscow Olympics, I actually broke my leg after the incident. It's funny but my broken leg eased my hurt [from vexation at the boycott]. I mean...until this happenned I was constantly anxious of whether I could go to the Olympics. I felt as if a gloomy cloud was always leaning all over me. The boycott was like a terrible hurricane hit you. It blew away the gloomy heavy cloud just in a moment. It blew off not just the cloud but also my house and everything. So I had nothing with me anymore. My house, university, everything around me were completely blown out. I was often thinking: "I wish I could go to the Moscow." But anyway, everything could have been much more painful if I didn't get injured. My leg was in a cast for a month and I couldn't do anything but staying in a bed. Interestingly, on the next day of the injury, I saw the fornt page of a paper saying: "{Name}, Unfortunate Broken Leg! Must be weeping over his misfortune by the boycott and broken leg. Wish you the best in the next year." But actually, I was lying in a bed without any particular thought. Until all that terrible things happened I felt so gloomy everyday. Once this happenned, I had nothing to worry about any longer. But in the mean time it was a kind of helpless situation. Then I thought: "Oh well, this is maybe..God must have given me a rest." Of course, I was totally frustrated with the boycott, and I still am. If I didn't break my leg, the frustration could have driven me to alcohol or something. And if somebody told me things like: "It's just the Olympics. Don't be so depressed," then I might have foght, thinking: "What do you know about how I feel!" This might have changed the whole direction of my life. Or I might become desperate and damned. But thank God, I was in the hospital and I couldn't do anything. I felt like God was telling me "{Name}, everything has been going so well till now. But not always things go as the way you want them to be. Have a good rest for now and use this opportunity for reflecting on your {sport}. Then you can begin your life with a new goal. Rest your body and mind for a while. Once your leg recovers, it is the brand new start. Then take a new lease on life and try your best." This was a very interseting experience to me. That's why when I saw the paper, "My goodness! This is quite different from the reality" [laugh]. While I was in the hospital in {prefecture}, my grandma, who lived in {prefecture}, came to see me. When she saw my face being lively, she was...

SHE WAS SURPRIZED?

Yes. My leg hurt me, but..yeah. Until then, I was really wandering everyday whether I can

go to the Olympics. I knew that didn't help, but anyway.

WHAT DO YOU THINK MADE YOU KEEP PURSUING YOUR SPORT CAREER?

First of all, I think it's because I loved {sport}. I feel it was indeed my sport. Normally I can get tired of things quite easily. But I have very strong competitive spirit. So the intensity of {sport} fulfilled my competitive spirit. {Sport} isn't a sport to compete with power, but you know, it's like mind reading game each time. That aspect attracted me a lot. Second, I would say I'm quite lazy by nature. But to tell you why I could keep pursuing {sport}, because I had a goal. Here we are now in a training camp. When I participated in training camps, there were some other guys pushing themselves as hard as I did. I don't think I was extremely talented physically. Of course, I wasn't just an ordinary fat guy. In my primary school and junior-high, I could run faster than any other kids and I was pretty good at ball games, too. But I wasn't extraordinary. The reason why I could achieve this level was that I knew my goals more clearly than anybody else. If your goal is clear, the closest goal, the next goal, and the big goal, then you'll practice on your own, but not to be pushed by your coach. Another main reason is that I really wanted to win. And if I have a goal in your mind and want to achieve that goal, you must know what you should be doing right at this moment in order to make it. Also, when you know clearly where you want to go, that allows you to bear difficult things, even if that's what you don't want to go through. When I thought: "I can't achieve my goal without doing this," I could go through with it. I looked back on my career after retirement and thought: "I indeed tried hard!" If I think of why I could accomplish this level of achievement, sustaining in over long periods of time, I think it's perhaps because I loved {spoort} and it had to do with a goal awareness. Among the top athletes in the national team, I was clearly aware of my goals, more than anybody, perhaps even among the top national athletes. I think that's the only difference from others, and maybe some other more complicated stuff like competitive spirit.

HOW WOULD YOU DESCRIBE YOUR LIFE AS AN COMPETITIVE ATHLETE?

My sport career was truly fulfilling. Oh boy, I had such a happy life as an athlete. I'll tell you why. Because I was in a good environment. I mean I came across good people. In that sense, I am a really lucky person. People often talk about luck. In my case, my luck meant in terms of people I met, but not the luck at competitions. I might have an exceptional talent, being so successful. I made so many more efforts than anybody else, and I used my head more than anybody. But that wasn't the only thing. The other thing was strong support from my surroundings, and my great coaches. Without these people, I couldn't have become as successful as I am. For example, let me see..when I was a little boy it was my grandpa. In my junior-high and high school, it was Mr.{Coach}, the one who showed us a lot of videos. He told me that I could make it. After that, Mr.{Coach}, he took care of me since I transfered to another high school in my second year until I retired, all the way through. When

I changed my school to {high school attached to a University}, support of Mr. {rector of University} was a big thing. He passed away last year, two years ago. He terribly loved {sport} and he treated me as if his own grandson. Mr. {rector} is from {Prefecture}, too. Lots of people from {Prefecture} take the important posts in the {University}. My coaches were great. In addition to this, the head of the university gave me a great favor. That was special. It wasn't like giving undue favor and spoiling me, though. He hoped that his guidance would help me pull out all my potential to make it. He also wanted to equip me to become a person who in devoted to developing Japan's sports or {sport} in the future. He not only wanted me to make it as an athlete but more. He taught me some other things, so many things, how can I say, he broadened my mind as a man. I think this was really important. So I had this sort of luck for sure.

NOW I HAVE A FEW QUESTIONS ABOUT PRACTICE. NORMALLY HOW DID YOU MENTALLY APPROACH PRACTICE SESSIONS?

...It differed daily. It's hard to tell...It wasn't me who decided overall practice schedules. And in our sport or team sports it's nonsense to practice all alone. If it's sports like track and field or swimming, you can practice by yourself. So...what kind of answer can I have for this question? Can you give me an example? I can't imagine what to say at all.

WELL, OKAY. LET ME CHANGE THE QUESTION A BIT. HOW ABOUT WHEN YOU DIDN'T FEEL LIKE PRACTICING? HOW DID YOU MENTALLY APPROACH PRACTICE THEN?

..Well, sometimes I didn't feel like doing it, of course. I didn't want to go to practice sometimes...But I never goofed off practice...I guess I thought I didn't have choice....Perhaps that's what I was thinking. But whenever I recalled competitions I lost, bitter feelings at the loss revived. As soon as I recalled it, a feeling of "I don't want to practice" was gone. Everybody must have days feeling: "I don't feel like practicing today" or "my body is so heavy today", even if it happens only once or twice a year. And in my case, "I don't have choice", that's what I was thinking. Because if you were a student and didn't show up practice, your teacher would rebuke you [laugh].

IS THERE ANYTHING YOU THINK YOU TRAINED DIFFERENTLY THAN OTHER ATHLETES?

I can't say I did it all the time, but I think I practiced as if I was in a real match, more than any other athletes by far. I was aware that practice wasn't for practice but for competitions. I didn't begin practice unless I understood the meaning of the work-out. I didn't like to say: "Yes, sir!" blindly to whatever my coach said and to do as I was told. When I was told to do something but didn't understand why I had to do so, my mind wasn't in it. So I first tried to

understand how useful and how meaningful it was forme, and then did it.

DID YOU HAVE SPECIFIC WAYS OF MENTALLY PREPARING YOURSELF TO IMPROVE YOUR PERFORMANCE EITHER DURING OR OUTSIDE OF PRACTICE SESSIONS?

No, nothing at all. Well, I can tell you one thing, how can I say..when I didn't feel like practicing or when I couldn't focus I consciously looked at a scar that I got from my coach for not doing well in competition. Then, it sparked my emotion. Miserable, shameful and desparate feelings revived in a flash. And then I said to myself: "This is wrong. I've got to do something." I consciously did these sorts of thing. Whatelse..before competitions, I did mental imagery, mentally imagining your opponent and went through matches in my mind. Whatelse..something mental..I can't think of it now.

THAT'S FINE. THANK YOU. NOW, THINK ABOUT THE {YEAR} OLYMPIC GAMES. WHEN DID YOU FIRST START TO PREPARE YOURSELF FOR THE COMPETITION?

.....Well, to tell you the truth.....uhnn..I think the day the Moscow Olympics was wrapped up. That was it. That was the brand new start for me. However, I denied this thought as much as possible.

WHY WAS IT THAT?

It's because I really hated people telling me: "I'm sorry about the boycott. It was a real unfortunate. But you've still got the next one, four years later." I know it's just another four years for general public, but for me..let me tell one thing, all 7 athletes who were qualified for the Moscow were for their first time of making the Olympic team. And it's only me who managed to go to {another Olympic}. So, it's not just a once-in-four-years thing. It's once-in-a-lifetime. It doesn't automatically come visit you if only you sit back and wait for it. That's why I didn't want to think about the [next] Olympics. I preferred to go year by year, focus one by one..I believed that. Well, I tried to believe that anyway. So, although the Olympics had always been my dream, I only began to speak of the Olympics to the media a year before, just around the World Championships. When they asked me questions, I kept saying: "The Olympic games? No way! I focus on one competition at a time. Year by year." I said so beacuse I tried to make myself believe it, too. I tried to believe it, not because I thought: "I better to do so," but because....I knew it was not so easy to win it, and there would be some possibility of winning only if I accumulated intensive training day after day. I told others so, as well as myself. But deep down in my heart, I became conscious of preparing for it at the point the finals were over in {the last Olympics}. Because I went to watch the Moscow

games, and on the day of the finals in {weight category} ended, I thought: "All right, it's all over now. Everybody get to the same starting point again. Start over from zero and try my best." Perhaps, that was the real start, to tell you the truth.

FROM ABOUT A WEEK BEFORE THE {PLACE} OLYMPICS, HOW DID YOU MENTALLY PREPARE YOURSELF FOR THE MATCHES?

Well, I thought this was going to be the last chance of making the Olympic team in my life. Actually I was qualified for the Moscow, but as a substitute. So, the situation there was that I could have participated in the tournament if either of two heavy-weight class athletes had been injured or something. Anyway, for {another Olympic} because I thought this would be my last chance for the Olympics, I did all my best on a day to day basis, thinking "Don't waste each of my days." That's why when I arrived there, when I landed at the airport in {city}, I thought: "I've done everything I should and I could. So now, only thing I've got to do is to get the best out of what I've done." In that sense, everything was going almost as usual during the week. I never had trouble sleeping until the day of my match. I felt very well every morning. But to tell you the truth, the Olympics was the one that scared me more than any other competition. It was 3 or 4 days before my match, one of my fellows, whose name is {athlete}, hurt a rib during a match and lost it. I remember since around this day...when I became alone, I saw myself winning the match and waving my hands to the audience with a big smile. In the meantime the image disappeared, and then I saw myself covering my head with a towel and shaking my shoulders and crying in a dark waiting room. These two pictures flitted across my mind by turns. Also, to check my physical condition, although I didn't have to lose weight, I got on the scales everyday. And I was losing about one kilo everyday no matter how much I ate, including my favorite ice cream in the morning. Then I thought: "This must be some kind of nervousness." But I didn't take it negatively. I rather told myself: "It is normal that this happens. This is the most important match in my life. I have been laying everything on the line for this match. It is rather abnormal if I don't get nervous. Normally I should be getting more nervous than this in such a situation. But the important thing is that I stand up to the battle with a fighting spirit twice or three times as much as my nervousness." Well, in that sense, it is...although I felt stiff when I became alone, I knew I would be totally ready for the match physically and mentally.

HOW ABOUT WHEN YOU GOT ONTO TO THE MAT?

...I got little nervous. When my name was called "Japan, {Name}", and I got onto to the mat, the audience went crazy. I could see so many Japanese flags waved in the audience. The mat was set little high up, too, you know. And to tell you the truth, I got shook up, a little. I actually won the match in 30 or 40 seconds. But my opponent didn't let me grip him at first, and quite frankly, I had mixed feelings. As soon as I finally managed to grip him, he got back at me, and I threw him away by counter attack without realizing it. It was like..my body reacted instinctively. People might think it was an easy win with full of confidence [laugh],

but I was actually little nervous up there.

NOW, TAKE A MOMENT AND THINK OF THE VERY BEST PERFORMANCE YOU'VE EVER EXPERIENCED?

The very best performance, well.....I think there are two. One is the World Championship that was a year after the Moscow, another is the {Olympics}. To tell you why the {Olympics} was one of the very best, because I could get the most out of my ability. I mean, once I injured my leg, my physical condition suddenly fell off. It became 60 or 70% out of 100. despite that, I could get best out of my ability under the circumstance.

WHEN YOU WERE IN THOSE COMPETITIONS, WHAT WERE YOU DOING OR THINKING IMMEDIATELY BEFORE THE MATCHES?

Well, ah...in the case of the world championship, before the final, I pictured the match one more time in my mind. I went through the moves that would work best for me as well as worst for my opponent. I pictured the moves that get the most out of my ability and the least out of my opponent's. Also I went through many strategies in case things didn't work. I'll do this and that, how about this that and so on. I was also aware of a couple of his moves I would have to be careful of and the situations that would have to be avoided. But believe or not, I couldn't find any reason for losing no matter how many possible patterns I went through. I'd never ever experienced that kind of thing before. I no longer had anything to worry about! Then, I heard another inner voice telling me: "Wait a minute! This is the final of the world championships in {weight category}. Nobody has ever won two titles in a same championship before. Your opponent is the European champion in {weight category}. Aren't you underestimating his ability? Aren't you kidding yourself?" All of sudden, I became nervous. I was doing so well and when I came to believe that I had the greatest chance of winning no matter what, I started thinking: "Is it okay to think like that? Aren't you off your guard?" I mean I started to worry about not having any worry. Anyway, I won the match as I expected. But the lesson I learned from the experience was that it's not so bad to get nervous. I mean I would rather think it's normal to become nervous in such a situation. In my case, you know, not having any worry made me worry. But I think the fact that I could turn a negative thing to a positive was a big factor in my victory. On the other hand, in the case of {Olympics}, I had no idea what moves I should make to win. Because of the leg injury, I wouldn't be able to seize the offensive by myself. So I couldn't imagine how the match was going to go at all. Then I thought: "Anyway, challenge your opponent with all your heart and soul. Chance will come at least once during five minutes of the match. The dividing line between victory and defeat hangs on whether or not you can pull that chance into your own side. Never complain about pain, and keep cool. Look your opponent right in the face and challenge him with your head held high." And I also said to myself: "This is the last match in your life." What actually happened in this match was that my opponent fell on me. I dodged him quickly, knocked him down, and held him down. I'll tell you why I could say it was the

best match. Because at the most critical moment in the most important match in my life, I came up with a technique instinctively when he fell on me. That technique was which I never ever practiced before, or I never even thought of it before. Actually the conditioning for the match was very bad. There were many things to be improved. I was ashamed of the injury. But I was thinking: "Even under the circumstance I could go and fight for the final by being mentally prepared by making myself intense to the max."

HOW ABOUT BETWEEN MATCHES? WHAT SORTS OF THINGS DID YOU DO OR THINK?

Well, in the case of the Worlds, just as usual. But I was fully confident for sure. In the case of {Olympics}, every matches differed one another. To the point, when I injured my leg, I told myself to accept the situation and be ready. You must have a total belief in yourself in the face of the match. Or accept things and be mentally ready if you can't. "Things will follow the path. I know the result anyway. All I can do is to do my best." That kind of attitude. You must have either confidence or a sense of acceptance. Because having any bits of doubt before a match doesn't do any good. Of course, it's really difficult to accept whole bad situation, even though you understand it in your head, so as to believe yourself [laugh].

HOW DO YOU THINK YOU CAN DO IT?

.....Well, one thing you can do to deal with your nervousness is to think: "It's normal to get nervous." Because, you know, the nervousness is an attribute of your determination that you desperately want to win, and having been working so hard for that. When I was younger, I got so nervous when I went to international competitions, being a representative of my country. Because if I lost, everybody would say that Japan was defeated. What was interesting was when I got nervous or felt choked or felt like running away from the site, I heard another inner voice whispering to me: "Hey you! Would you prefer to stay home and watch the world championships sadly on TV to cheer other Japanese athletes? " or, well, that's the same in competitions at home, "Did you want to be disqualified for the national championships and be part of the crowd, instead? Is that what you wanted?" I could hear the voice. Then I thought: "No, it's not! I've been training so hard for this competition and it's me who wanted it so badly." Then all of sudden, all negative feelings were blown away. [At the Olympics] I could think it was what I wanted by myself, too. I had been training for years for that match. This is strange but, since I went to the Olympic village, I had never ever thought of the national flag of Japan, the national anthem, or Japan's {sport}, even once. I wanted to win for myself. I can't believe this was happening to me, but happened. In the World Championships, on the other hand, I was thinking: "If I lose, people will say 'Japan defeated'. People won't simply say '{Name} lost'."...So ultimately I had been doing everything for myself. I wanted to win for myself at the Olympics. That was pretty clear to me. And I'm proud of myself not thinking of doing it for Japan. Although I made everybody nervous by getting injured and it was shameful in a way, I think I deserve praise for two things. [Not thinking of country] and

I could make a move unconsciously which I never did before, with my dragging leg under the circumstance that I didn't even know how I won it.

OF COURSE YOU DESERVE IT VERY MUCH. NOW, I WANT TO YOU TO THINK ABOUT THE WORST COMPETITION OR THE ONE YOU DID NOT FEEL VERY HAPPY WITH IN YOUR CAREER.

.....Well, there are two. One is...when I was a university student, uhm..both were the Inter-collegiate competitions, and the opponent was the same guy. No, the opponents were not the same. It was a two-day competition. We had the weight categorized match in the first day and the open match in the second day. Only those athletes who won in the first day could go for the next day, only the top athletes. In the first day, our university team won in three categories out of five, including me. And other two were my peers. I was so happy for my friends, more than for my own victory. I am a kind of guy who hardly be off my guard, leave nothing to chance. I'm usually quite cautious. I mean I hate to kid myself, because you never know what's going to happen in competition. So, it was quite unusual for me to lose myself like that. Normally I would have thought that the victory becomes mine only after winning the second day. But this time, two of my friends won and we shared the joy together. We went down to a bar to celebrate. In the meantime, I totally forgot I had another match on the next day. I must have been too happy for my friends. I was drinking until 3 o'clock in the morning. Then I suddenly realized that I had another match tomorrow! I jumped out of chair and rushed out of the bar, saying to my friends: "I've got to go!" My friends were already very happy with their victories on the first day, so they didn't care even if they would lose tomorrow in the first match. I went home and threw up everything. That's why I wasn't in the swing of things, of course, although I won the match. What a shame!

IN THAT COMPETITION, WHAT SORTS OF THINGS WERE IN YOUR MIND JUST BEFORE THE MATCH?

Oh boy, there was no room for putting myself together. I felt pressed. I thought: "What a mess!" I don't think either I had confidence or I could shift my attitude to accept the reality.

HOW ABOUT BETWEEN THE MATCHES?

The thing is I think I smelled of alcohol. And I didn't want disappoint my coach. I mean, how can I say...I was afraid of losing his trust. It's so unusual for me to play that kind of fool. This experience was a real shame. I didn't think about losing the match, but....oh boy, I can still break into cold sweat whenever I recall it. Another competition which I wasn't happy with took place right after I became the national champion, and I lost it. I felt I couldn't lose the match and I didn't take any risk. I was on the defence. I was very careful and very cautious. That was the mistake and turned out to be a defeat.....Because my opponent tried to

get a leadoff attack in the first minute, he went zoom, I became defensive. During the rest of 9 minutes, he kept trying counter attacks. Anyway, I could have won it only if I pretended to offend. I was thinking: "I'd better to be on the defensive while looking confident than to make unnecessary attacks and take a chance of getting counter attacks." So I didn't set out any particular technique and I lost it. I just didn't like to pretend to throw him, too. But I think the major cause of the loss was being too careful.

WHAT DO YOU THINK WERE THE MAJOR DIFFERENCES BETWEEN THE BEST MATCH AND THE NOT-SO-GOOD MATCH IN TERMS OF YOUR FEELING, PREPARATION, OR FOCUS?

.....Well um, if I compare bad ones to good ones, I wasn't committed to the match with all my heart and soul. I mean really. ...And if you didn't devote yourself in it, then focus would naturally be different. Quality of preparation, too. It's normal if it differed. You can't do the same preparation for every competition. There are different levels of competitions; one that comes only once in a lifetime, ones that come once in two years, and ones that come every year. If you treat all of these in the same way, you'll never have time to graduate from school. If it were the once-in-a-lifetime match, I wouldn't bother myself taking school exams that interfered with my preparation for competition. I didn't even care about failing to move up to the next grade for a couple of years. I thought: "I don't know how long we as human beings can live, 70-80 years perhaps. But this is the most important event in my life." So I can't compare quality of preparation....but I think the main difference was the degree of commitment.

ALL RIGHT. NOW, I HAVE A COUPLE OF CLOSING QUESTIONS. WHAT DO YOU THINK ARE THE MOST IMPORTANT MENTAL ELEMENTS FOR REACHING THE HIGHEST LEVEL IN {SPORT}?

.....Only one?

NO, NO. AS MANY AS YOU WANT.

...First of all, I would say competitive spirit. Striving for winning against yourself as well as your opponent.....You also must be a person who craves improving yourself. I think this is related to your goal awareness, too...It's almost impossible to reach the highest level if a person isn't willing to improve himself by himself. Because sports literally involves so much in the way of dealing with demands, intensity, and pain...And focus, this is something absolutely necessary, no matter what sport. I often say that to be an excellent {sport} competitor, the most important things are focus, determination or competitive spirit, and you also need a high level of persistence in competition, not giving up a match until it's really over. To make it simple, I would say these three are the most important things.

CAN YOU DESCRIBE MORE SPECIFICALLY WHAT FOCUS MEANS?

Well, to the point, you must get all out of what you have done during five minutes on a given day. To do so, to give you an example, it's like drawing a bow. Strain a bow to the max. Sensitize all your nerves so that you can read everything that is going on around you. I think that is focus.

HOW ABOUT DETERMINATION?

Determination. {Sport} is a combative sport. It's just like a fight. When you approach the most important match of your career, you've got an attitude like "a soldier going onto a battle field". You step out in the field at the risk of your life. Dead or alive frame of mind. When you have such a mental state, you've got to be as tough as iron. It's not good enough to try hard. You must definitely and desperately want it. I think this is determination or combative spirit.

ARE YOU TALKING ABOUT THIS IN TERMS OF COMPETITION OR IN GENERAL IN {SPORT}?

In competitions....But it's important in practice as well.

OKAY. SUPPOSE I AM A TALENTED YOUNG {SPORT} COMPETITOR. CAN YOU GIVE ME ADVICE TO HELP MY PURSUIT OF SUCCESS IN {SPORT}?

First of all, love your sport. I would also say various things about {sport} that fascinates me. Another thing is to set clear goals. In other words, have a clear image of the style of your {sport} that you want, the ideal image of {sport} for yourself. Set small goals close at hand as well as a big one. Also, picture an image of yourself competing at the most important match in the way you want. And also, think about your daily goal when you come into the gym every day. In some cases, I might say: "Imagine yourself approaching a match." I think that's about it. Well..there are things that are very hard and painful in sport. But overcoming yourself and pushing yourself hard not only helps you improve your {sport} skills, but also helps you deal with things in your life. So don't defeat to yourself. I might say something like that. And what you learned from {sport} will be helpful when you become a working member of the society, too. I have so many things to say, but these are the main things I would probably say.

WHAT CHANGE SHOULD BE MADE TO IMPROVE THE READINESS OF JAPANESE ATHLETES IN TERMS OF EITHER WITHIN YOUR OWN SITUATION OR THE SPORT SYSTEM?

SITUATION OR THE SPORT SYSTEM?

Well, improvement.. we need a link up between the practical field and science. We must advance this. I mean we shouldn't totally depend on our personal experiences as athletes. But we must invite people from sportpsych, dietetics, physiology, and physical conditioning trainer, these people working together with us to develop elite athletes. And it's necessary to distinguish elite or competitive sports from other kinds.