What gets them rowing? A Comparative Study of the Achievement Motivation of Male and Female Elite Rowers when Training and Racing

by

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B.Sc., University of Victoria, 2002

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Abstract

Elite athletes are highly motivated people, and need high levels of motivation to prevail through the tough training sessions and through set backs (Hardy, Jones & Gould, 1996). Therefore, research on motivation and specifically what contributes to a rower’s motivation becomes significant from both a theoretical and practical view. The purpose of this study was to first, identify and understand motivational differences and similarities between the genders of elite rowers, using the framework of the Achievement Goal Theory. Second, it was to further explore these motivational differences and similarities between practice and competitive situations. This study investigated the phenomenon of motivation through a qualitative approach by interviewing 8 female and 5 male rowers from the Canadian Olympic Rowing team, where significant statements were identified and clustered into themes. Overall, there were more similarities than differences between the genders. Both genders had the goal to win, expressed the importance of the process rather than the end product and agreed that their teammates were very important to them and greatly influenced their behaviours and performances. Among the different
situational environments, the rowers’ responses illustrated that it was not only possible to 
be task, ego and socially involved at the same time, it tended to be the norm. Results 
from this study also challenged the traditional framework of the Achievement Goal 
Theory, including illustrating the importance of social orientation amongst the elite 
rowers. Several implications for athletes, coaches and sport organizations were 
mentioned to improve an athlete’s performance.

Supervisor: Dr. Bruce Howe, (School of Physical Education)
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Introduction

"Rowing is the most perfect sport in existence" as claimed by Pierre de Coubertin, the father of modern Olympics (de Coubertin, 2000, p. 183). While this opinion may have validity, many people are surprised that rowers are prepared to dedicate the time necessary to achieve in this very demanding sport. Hardy, Jones & Gould (1996) stated that elite athletes are highly motivated people, and need high levels of motivation to prevail through the tough training sessions or through set backs. It is assumed that the field of motivation may provide the explanation. Therefore, research on motivation and specifically what contributes to a rower’s motivation becomes significant from both a theoretical and practical view. Such research can contribute to knowledge about human motivation and how it influences the way people behave, feel and think (Ryan & Deci, 2000b). In addition from a practical sense, such knowledge can provide guidance to coaches, athletes and sport organizations to build an environment that optimizes an athlete’s development, performance and well-being (Ryan & Deci, 2000b).

As research on motivation has expanded, an abundant number of definitions for motivation have appeared. As a consequence, the term motivation is often overused or used incorrectly. For example, many coaches assume motivation to be equivalent to arousal, as they “motivate” their athletes in a pre-game pep talk. There is no single definition of motivation, but in a general sense, it can be thought as the psychological drive or force that activates one’s behaviour. More specifically, and for the purpose of this paper, the term achievement motivation is defined as a process in which an “individual becomes motivated, or demotivated, through assessments of his or her competencies within the achievement context and of the meaning of the context to the
person” (Roberts, 2001, p. 6). Gill (2000) referred to achievement motivation as a person’s orientation to strive for task success, persist in the face of failure and experience pride in accomplishments. Goals or achievements are subjectively defined by an individual, as they are based on what the individual perceives to be personally and socially valuable (Roberts, 2001). In addition, success and failure of the outcome of the achievement behaviour towards the goal is also subjectively evaluated by the individual. And thus, the meaning of success, or failure, could mean something different between individuals.

Motivation has also been defined as a dynamic concept and is referred to as a process rather than a product (Roberts, 2001; Pensgaard, 1999). Therefore, it is reasonable to expect that an athlete’s level of motivation can fluctuate; and at an elite level a small change in motivation can drastically impact an athlete’s performance in competition or practice. Further, an athlete’s motivation, and thus their behaviour, can be indirectly influenced by personal factors, social variable, and/or cognitions (Roberts, 2001). These behaviours may include the athlete trying harder or paying more attention, or conversely the athlete reducing effort or lacking concentration.

As well, when defining motivation within sport, the construct of competitiveness must be included. Competitiveness has been viewed by several sport psychologists as a sport-specific form of achievement motivation (Houston, Carter & Smither, 1997). Martens (1976a) defined competitiveness “as a disposition to strive for satisfaction when making comparisons with some standard of excellence in the presence of evaluative
others in sports" (p. 326). Even Martens (1976a) admitted that the two constructs of achievement motivation and competitiveness are closely related, but stated that the competitiveness motive is a more specific form of the general achievement motive. As well, social comparison must be present from competition to exist (Martens, 1976b). However, while an individual may require a need for achievement and competitiveness, it is possible that a need for competitiveness may not be present in a highly achieving person (Smither & Houston, 1992).

**Purpose of the Study**

The purpose of this study was twofold. First, it was to identify and understand motivational differences and similarities between the genders of elite Canadian rowers, using the framework of the Achievement Goal Theory. Second, it was to further explore these motivational differences and similarities between practice and competitive situations.

**Significance of the Study**

The significance of this study relates to sample population and methodology. First, the majority of previous sport motivation research has been based on high school and collegiate samples (e.g., Duda, Chi, Newton, Walling & Catley, 1995; Fortier, Vallerand, Briere & Provencher, 1995; Gill, 1988; Schilling & Hayashi, 2001; White & Duda, 1994). Several of the collegiate samples have been drawn to represent the "elite level" because access to elite athlete data is difficult because there is a limited number of top international elite athletes, who experience a very busy and strict schedule (Pensgaard, 1999). Thus, there is a need for more research on the goal orientations of
elite athletes (Hardy, Jones & Gould, 1996). Second, the previous methodologies used have been largely quantitative based on the use of questionnaires and by using a specialized group of athletes that are already highly motivated, the use of questionnaires may create a ‘ceiling effect’ (Pensgaard & Roberts, 2002). While any differences may be too small to detect by statistical comparison, these small differences can have a considerable effect on the elite athlete’s performance or perceived ability. Related to the problem of the small number of world-class athletes is the inability to obtain an appropriate sample size for quantitative analysis. Further, the quantitative measures used in achievement motivation are frequently based on task and ego goal orientations, excluding other potential goal orientation, such as social goal orientation (Schilling & Hayashi, 2001). To overcome these limitations, a qualitative methodology, in the form of in-depth interviews was employed to investigate what was considered meaningful by the participants and but not be possible to observe directly.


Literature Review

This literature review presents an overview of selected relevant theories on motivation and achievement motivation. It concludes with a general view on competitiveness and the characteristics of elite athletes, including gender differences.

Motivation

Motivation plays a key role in every person's life and moreover people are motivationally complex (Vallerand, 2001). Whether one is an athlete, a businessperson, a student or an artist, motivation will influence their thoughts and behaviour. Motivation research, from a behavioural and cognitive point of view, has exploded over the past 30 years (Wigfield & Eccles, 2002). In particular, research has focused on achievement motivation in the different domains of psychology including education, business, exercise and sport. Researchers have been intrigued by why individuals participate in certain tasks while they do not participate or even avoid others. As well, researchers have investigated why some individuals persist in difficult tasks, but demonstrate little effort in easy tasks.

Definition of Motivation

The term motivation is derived from the Latin word movere, meaning to move. As research on motivation has expanded, a large number of definitions for motivation have appeared. As a consequence, the term motivation is often overused or used incorrectly. Earlier motivational theorists have linked motivation with inner forces, including instincts, traits, volition, and will. Behavioural theorists relate motivation to one's level of response to a stimuli brought about by a reinforcement or a reward.
Recently, cognitive researchers have claimed that an individual’s thoughts, beliefs, and emotions influence their motivation (Pintrich & Schunk, 2002).

Motivation, and more specifically for the purpose of this paper, achievement motivation can be described within the sport and exercise domain from a social cognitive perspective. Motivation is perceived as a process in which an “individual becomes motivated, or demotivated, through assessments of his or her competencies within the achievement context and of the meaning of the context to the person” (Roberts, 2001, p. 6). In this way, motivation represents the energy used by an individual’s personal goals, an individual’s achievement behaviours towards the goal, and as well the perception of the individual’s competence to achieve the goal. The achievement or goals are subjectively defined by an individual, as they are based on what the individual perceives to be personally and socially valuable (Roberts, 2001). As well, success and failure of the outcome of the achievement behaviour towards the goal is also subjectively evaluated by the individual. Therefore, the meaning of success or failure, will likely mean something different to particular individuals.

Just as there is inconsistency regarding the definition of motivation, there is also a discrepancy of opinions about how motivation works and where it is derived. Most researchers categorize the source of motivation into one of three categories. The categories are similar to the approaches used in personality research, and include a trait-centered view, situation-centered view and the participant-by-situation interactional view. The trait-centered view implies that motivated behaviours are a function of individual
characteristics or the individual’s traits. Traits are personality predispositions and are “considered to be stable, enduring, and consistent across a variety of differing situations” (Cox, 2002, p. 158). Situational-centered view concludes that one’s motivation level is determined by the situation. However, Roberts (2001) stated that the impact of the environment is based on what the individual perceives the effect to be on them. The third view of motivation, participant-by-situation interactional view, is the most accepted view sport and exercise psychologists (Weinberg & Gould, 2003). These individuals believe motivation is derived from the interaction of one’s traits and the situational factors.

When it comes to the study of motivation and its effects on achievement behaviour, there is no shortage of theories. One of the first researchers to discuss achievement motivation as a personality disposition was Murray in 1938 (Gill & Deeter, 1988; Gill, 2001) and he was also the first to bring attention to the need for achievement (nAch).

Murray (1938) described more explicitly the need to achieve as:

To accomplish something difficult. To master, manipulate or organize physical objects, human beings, or ideas. To do this as rapidly and as independently as possible. To overcome obstacles and attain a high standard. To excel one’s self. To rival and surpass others. To increase self-regard by the successful exercise of talent. (p. 164)

Furthermore, Murray (1938) stated that the actions that accompany the need to achieve include:

To make intense, prolonged and repeated efforts to accomplish something difficult. To work with singleness of purpose towards a high and distant goal. To have the determination to win. To try to do everything well. To be stimulated to excel by the presence of others, to enjoy competition. To exert will power; to overcome boredom and fatigue. (p. 164)
Theory of Achievement Motivation

Murray's work acted as a guide for McClelland, Atkinson, Clark and Lowell (1953) in their research of the classic achievement motivation theory (Atkinson, 1964). The Theory of Achievement Motivation entails the determinants of the direction, magnitude, and persistence of behaviour towards important human achievement-oriented activities. This includes the role of stable motives of an individual (personality), the individual's expectations of the consequences of their actions (situational influences), and the basic behavioural processes (Atkinson & Feather, 1966).

Atkinson (1966) stated that the strength of motivation to perform a task is a multiplicative function of the strength of the motive ($M$), the expectancy or probability ($P$) of the outcome (success and failure) and the value of the incentive ($I$). Motives can be divided into the motive to achieve success, and the motive to avoid failure. Motive to achieve success ($M_S$) is defined as "the capacity to expect positive affects to occur in situations which are perceived as challenging" (Thomassen & Halvari, 1996, p. 1363). Atkinson (1964, 1966) stated that the motive to achieve is a stable characteristic of an individual and is present in any of their behaviour situations. An individual with a high motive to achieve success would be attracted to situations where their performance can be evaluated by others, such as sport competition (Thomassen & Halvari, 1996). On the other hand, motive to avoid failure ($M_{AF}$) is defined as "the capacity within the individual to expect negative affective changes to occur if situational insecurity regarding competitive outcome is imagined or experienced" (Thomassen & Halvari, 1996, p. 1364). This can be shown by reacting with shame or embarrassment. Individuals who score
high on motive to avoid failure are anxiety-dominated people, and they tend to perceive competitive situations as threatening and unpleasant (Thomassen & Halvari, 1996).

The classic theory of achievement motivation had been the object of feminist criticism (Hyde & Kling, 2001; Spence & Helmreich, 1983), as the traditional research methods of Atkinson and McClelland were seriously flawed. When the females in the studies did not perform according to the theory, the researchers removed them instead of questioning their theory. Female behaviour was viewed as problematic and in need of a separate motivation theory from the males. Through the 1950s and 1960s, achievement motivation research revealed that females had a lower level of achievement motivation than males (Tyler, 1956), which was consistent with societal notions of women at that time. With more recent studies, gender differences in achievement motivation have not been indicated (Mednick & Thomas, 1993).

In summary, the Theory of Achievement Motivation was derived from the early works of Murray, and the Need for Achievement. This theory states that one's achievement-related behaviour is a result of a conflict between hope of success (approach motivation) and fear of failure (avoidance motivation). These tendencies are a function of achievement-related needs (motive to achieve and motive to avoid), the expectancy of success and failure, and the incentive value of success and failure. Overall, individuals with a high value of resultant achievement needs are more likely to be attracted to tasks of intermediate difficulty, and individuals with low achievement needs avoid tasks that have a probability of success near fifty percent.
Achievement Goal Theory

The Theory of Achievement Motivation (Atkinson, 1964, 1966; McClelland, Atkinson, Clark & Lowell, 1953) has been the most prominent achievement motivation theory historically. However, in contemporary research the Achievement Goal Theory has been the most influential theory. This theory focuses on why individuals are motivated by emphasizing the importance of how individuals think about themselves, their tasks, and their performance (Midgley, Kaplan & Middleton, 2001). The Achievement Goal Theory only applies to individuals “who are trying to achieve a desired personal or socially constructed goal in an achievement context” (Roberts, 2001, p. 17). It is assumed that an individual’s achievement goal influences how they will think, feel, and behave in an achievement situation (Roberts, 2001). The theory also assumes that an individual enters into an achievement context to demonstrate competence; therefore the “goal of action” is the demonstration of competence or ability (Nicholls, 1989). According to Nicholls (1989), there are two conceptions of ability: undifferentiated concept of ability and differentiated concept of ability. When individuals do not or choose not to differentiate ability and effort they are categorized with an undifferentiated concept of ability; whereas individuals that do differentiate ability and effort have a differentiated concept of ability.

These two conceptions of ability are utilized in two identified achievement behaviours: task involvement and ego involvement. When individuals are task-involved, their achievement behaviour utilizes the undifferentiated conception of ability. Their perception of ability is self-referenced, as individuals evaluate based on their personal
performance of the task with little concern for the outcome. The "goal of action" is to
develop mastery, improvement and/or to learn a task. The focus is on learning and self-
development; and success is perceived when mastery or improvement of the task has
been accomplished. On the other hand, when individuals are ego-involved, their
achievement behaviour utilizes the differentiated conception of ability. In this situation,
the "goal of action" is to demonstrate superior ability relative to others, especially out-
performing others; and their perceived ability is other-referenced. The focus is on
winning and beating others, and therefore success is perceived when the performance of
others is exceeded, especially if little effort is expended (Nicholls, 1989).

Nicholls (1989) stated that not only can one's type of involvement predict their
choice of task, but it can also predict the performance as a function of perceived ability
and task difficulty. Task-involved individuals are more attracted to tasks for which they
believe high effort is needed for success; however, success is not certain. Further, for
these individuals, the amount of effort put forth correlates with an amount that is
perceived to be needed to master or improve on that task. Individuals who are ego-
involved and have a high perceived ability would have moderate expectancies of success
on normatively moderate to difficult tasks, though success would indicate a high ability.
As well for these individuals, a high effort would be executed to establish that they are
above average. In fact, when ability is perceived to be high in both task and ego-
involved individuals, they would demonstrate similar behaviour, as personally
challenging tasks would be chosen (Nicholls, 1989). However, if ego-involved
individuals perceive their ability as low, they would avoid levels of moderate difficulty
tasks to avoid any feelings of failure and incompetence. They would favour a task with a level of difficulty on the extremes of either really easy or very difficult (Nicholls, 1989). In fact, Nicholls claimed that in a situation of ego involvement, “performance is impaired more by the expectation that failure will indicate one’s lack of competence than by the mere expectation of failure to complete a task” (p. 119).

In a critique of achievement goals in sport, Harwood, Hardy and Swain (2000) questioned whether Nicholls’ (1989) definitions of “ego” and “task” can be directly transferred from an education domain to a sport domain and maintain their meanings and relevancies. They proposed within the sport domain, there are three forms of goal involvements. The first form is task involvement, which is equivalent to Nicholls’ task involvement, where achievement is considered as effort, hard work and learning (Harwood et al., 2000). However, it is proposed that task orientation is only applicable in certain sport contexts, in particular, a recreation context. They believed that only recreation and non-competitive activities provide the setting for the undifferentiated conception of ability, or when individuals do not or choose not to differentiate ability and effort, to be activated. Harwood et al. (2000) believe that task involvement would not be present in competitive sport and what is perceived as task involvement in competitive sport would be better defined as self-referenced ego involvement.

Self-referenced ego involvement, the second proposed goal involvement, relates to when an individual is focussed on evaluating person’s current personal skills to oneself. As well, they have a self-referenced criteria of success (Harwood, Hardy &
Swain, 2000; Roberts, 2001). More simply, the individual competes with themselves. However, in a rebuttal article, Treasure, Duda, Hall, Roberts, Ames, & Maehr (2001) disagreed with the notion that self-competition means one is ego-involved. “When evaluating performance in a self-reference manner relative to previous performances, an individual is not engaging in normative evaluations with present others, and so is not invoking ego-involving comparison” (Treasure et al., 2001, p. 324). According to Martens’ (1976b) definition of competition social comparison must be present. Sherif (1981), in a paper about females and competition, disagreed with Martens and claimed that one could compete with oneself and therefore, competition does not need the presence of others. Though, Treasure et al. (2001) accepted in Martens’ definition that for it to be ego-involvement there needs to be the presence of others to evaluate one’s performance, otherwise the context is not normative. The third form of goal involvement Harwood et al. (2000) proposed is norm-referenced ego involvement, in which the definition corresponds with the current definition used for ego involvement.

However, to determine an individual’s involvement during their participation in a task would depend on their dispositional orientation, either ego or task, and the situational factors (Nicholls, 1989). Task-oriented individuals are assumed to become task-involved, and ego-oriented individuals are assumed to become ego-involved. Task-oriented individuals believe hard work and cooperation lead to success, and ego-orientated individuals view success is achieved through having superior ability (Roberts, 2001). Individuals’ goal orientations are considered to be a stable construct, and influence their cognitive and affective responses (Nicholls, 1989). It is assumed, though
often forgotten, that goal orientations are orthogonal; and therefore one can be high or low in either or both orientation at the same time (Nicholls, 1989). For example, in a study, individuals who exhibited higher levels of enjoyment, persistence and performance on a task emphasized both ego and task involvement goals (Steinberg, 1996). However, most of the empirical literature focuses on the comparison of high task individuals against high ego individuals.

Goal orientations are antecedents to perceptions of the motivational climate (Nicholls, 1989). A motivational climate can be divided into two main types, performance climate and mastery climate. A performance climate is characterized “by a focus on normative evaluation, social comparison, and winning” (Pensgaard, 1999, p. 117). A mastery climate is characterized “by a focus on personal learning, improvement, and individual feedback” (Pensgaard, 1999, p. 117). Thus, task-oriented individuals would perceive a mastery climate, while ego-oriented individuals would interpret a climate to be performance-oriented. As well, Nicholls (1989) stated individuals’ goal orientation and perception of their motivational climate are dynamic concepts, meaning they can change over time and in relation to each other. For example, Pensgaard’s study (1999) found that the athletes’ goal orientation and perceptions of motivational climates changed while attending the Olympic Games. The athletes’ task orientation scores decreased marginally, while their ego orientation scores were static. This is inconsistent with Nicholls’ (1989) claim that an individual’s ego orientation would increase when they approach a situation where social evaluation would likely occur.
In summary, the Achievement Goal Theory has been the most frequently used theory in the last decade to address motivation in sport (Roberts, 2001). The theory focuses on why individuals are motivated by emphasizing the importance of how individuals think about themselves, their tasks and their performance (Midgley, Kaplan & Middleton, 2001). Individuals’ motivation to complete their “goal of action” for the task is categorized as being task-involved or ego-involved. However, task involvement and ego involvement have an orthogonal relationship, and are not dependent with each other. As well, new motivation research has been introducing new goal orientations and involvements that better represent and understand achievement motivation.

**Personal Investment Theory**

While Nicholls’ (1989) based his theory on the notion that individuals strive to display their high ability and avoid demonstrating a low ability, not everyone’s motivation can be explained by this, resulting in research that included a social view of motivation. Starting in the field of education, studies (e.g., Ryan, Hicks & Midgley, 1997; Anderman & Anderman, 1999) started to include the impact of social goals in their research. One of the most prominent theories is that of Personal Investment Theory (Maehr & Braskamp, 1986) which is similar to the Achievement Goal Theory, but includes a framework involving social influences. The Personal Investment Theory involves social factors in terms of motivation in three distinct ways. First, the theory acknowledges social goals in addition to task and ego goal orientations. Second, a person’s identity involves the perception of their social or cultural group, which directs to their “sense of self”. And finally, social aspects influence an individual’s perceived options for participation in activities.
Personal incentives are defined as what an individual perceives to be attractive or unattractive within their environment and thus have a meaning similar to personal goals, a term used in the achievement goal research. However, the term goals are “all too readily identified with level of performance and less readily associated with direction of activity” (Maehr & Braskamp, 1986, p. 50). There are four broad categories of personal incentives including: task, ego, social and extrinsic personal incentives. Task personal incentives, similar to task goal orientation and intrinsic motivation, are characterized by the mastery and learning of a skill for the enjoyment of it. Ego personal incentives, or ego goal orientation, promotes social competition and involves putting effort forward to be better than someone else and demonstrate competence. Social personal incentive is a motive associated with the experience of affiliation where there is the development of close social relationships and having fun with others; and social validation (Allen, 2003). Social validation includes social status amongst peers, as well as recognition from others and social standing (Allen, 2003). Social personal incentives play an important role in tasks that require much effort but little ability (Maehr & Braskamp, 1986). The last personal incentive is extrinsic personal incentive, where an individual engages in activity for the external rewards (e.g., money, trophies).

Within the sport domain, even fewer studies (e.g., Schilling & Hayashi, 2001; Allen, 2003) have included social goal orientation. Though labelled differently between each study, social goal orientation is divided into two types: intimacy goals and social status goals. Intimacy goals, also known as relationship goals, refer to the individual’s desire for close and intimate friendships, and thus emphasize affiliation experiences
(Ryan et al., 1997; Allen, 2003). As a result, an individual would be oriented to engage in sport for the opportunity to socialize and develop relationships amongst his or her peers. Competition and comparison to others are excluded from intimacy, as in task orientation goals. The second social orientation goal, social status goals, refers to the individual’s emphasis on social validation. Social Validation includes social status amongst peers, as well as recognition from others and social standing (Allen, 2003). Thus, such an individual’s reason to be involved in sport is to gain social status and recognition.

Schilling & Hayashi (2001) were intrigued by the lack of acknowledgment of social goal orientation considering sporting activities tend to be either team-oriented or individual-oriented. Team sports require individuals to be compatible and cooperative amongst each other to obtain success. These type of team sports are called interactive sports (Cox, 2002), as success requires interaction between the members of the team. Sporting activities involving minimal interaction, such as skiing and golfing, are referred to as coactive (Cox, 2002) where individuals, though part of a team, do not receive any direct or physical aid from their team members. A study on highschool basketball players and cross country runners, using the Personal Investment Theory, revealed the presence of socially-oriented motivation (Schilling & Hayashi, 2001). Thus if the researchers had originally only used task and ego goal orientations, the athletes’ perceptions would have been mislabelled and misrepresentative of their achievement motivation. As well, it was evident that team-oriented athletes, have more of socially-
oriented motive, and thus it is assumed that rowing in an eight would emphasis social-oriented motives more than rowing in a scull.

In conclusion, the Personal Investment Theory examines achievement motivation as a multidimensional perspective. It is similar to Achievement Goal Theory with task and ego goals, but also incorporates social factors. Studies (e.g., Allen, 2003; Schilling & Hayashi, 2001) have illustrated the presence of social orientation amongst athletes. In the past, researchers would have labelled these goal orientations as task or ego, and thus the athlete’s perceptions on achievement motivation would have been mislabelled and misrepresented.

**Self-Determination Theory**

When discussing motivation, the constructs of intrinsic motivation, extrinsic motivation and amotivation should be included for three reasons. First, they explain a large part of human behaviour. Second, they are important characteristics of human experience. Finally, they lead to important and varied consequences (Roberts, 2001). Intrinsic motivation is defined as engaging in an activity out of interest and for the pleasure and satisfaction achieved from performing it successfully (Deci & Ryan, 1985). In contrast, extrinsic motivation is defined as engaging in an activity to attain the outcome, including rewards and prestige (Ryan & Deci, 2000a). Therefore, the purpose for participation for an intrinsically motivated individual is within the process itself, where an extrinsically motivated individual participates for the product or the benefits. It is assumed that an intrinsically motivated individual experiences pleasant emotions such as enjoyment, freedom and relaxation, compared to an extrinsically motivated individual
who feels tense and pressured (Roberts, 2001). Much of the pressure is felt from social approval, where the outcome depends on others and hence it is outside one’s control. An intrinsically motivated individual seeks affective type of rewards, including enjoyment and pleasure. On the other hand, extrinsically motivated individuals seek for social and material rewards, including fame, recognition, and popularity.

Developing out of the work of intrinsic and extrinsic motivation is the Self-Determination Theory (SDT) (Deci & Ryan, 1985, 1991). The SDT identifies the different types of motivation and behaviours that are accompanied by a sense of freedom and autonomy and those that are accompanied by a sense of pressure and control. Thus the term self-determination is used and defined as the degree in which individuals have an autonomous or flexible choice of their actions, as opposed to being controlled or pressured (Grolnick, Gurland, Jacob & Decourcey, 2002). The different types of motivation are spread across a continuum based on their degree of self-determination, which “describes how one’s motivation for behaviour can range from amotivation or unwillingness, to passive compliance, to active personal commitment” (Ryan & Deci, 2000a, p. 60). From higher to lower levels of self-determination, the types are intrinsic motivation, extrinsic motivation and then amotivation.

Intrinsic motivation has been divided into three types: knowledge, accomplishment and stimulation (Ryan & Deci, 2000a, 2000b). First, intrinsic motivation is defined as the motivation to engage in an activity for the pleasure and satisfaction gained from learning, exploring or trying to understand something new. For
example, a rower practices because they enjoy learning how to create that perfect stroke. Second, intrinsic motivation may involve the pleasure and satisfaction gained while accomplishing a task or to surpassing previous levels. For example, a rower who practices to experience the pleasure while attempting to achieve a correct stroke. Finally, intrinsic motivation may include the experience the reward from stimulating sensations, including sensory, aesthetic pleasure, fun and excitement. For example, a rower participates because they enjoy the sensation of a boat gliding through the water.

Ryan & Deci (2000a, 2000b) have noted four different types extrinsic motivation: integrated regulation, identified regulation, introjected regulation, and external regulation. Only integrated regulation and identified regulation are considered to be self-determined, as individuals participation is their choice. Integrated regulation involves a choice by the individual in within the outcome is valued rather than interest in the activity solely for itself, and involves other aspects of the one’s life. For example, a rower decides not to go out with their friends that night, to prepare for the next day’s race. With identified regulation, the behaviour is highly valued by the individual and therefore, they proceed to participate, but they may not enjoy the activity. For example, a rower who does not want to train in the rain but knows the practice will improve their stamina, and therefore chooses to attend practice. The third type, introjected regulation is when a behaviour is acted out from self-imposed internal pressures (feelings of guilt and anxiety) from external sources. For example, a rower who would feel guilt if they did not attend a practice, and therefore attends. And finally, external regulation is defined as when a
behaviour is guided by external sources, such as rewards and constraints. For example, a rower who goes to practice so the coach will select them to race that weekend.

A newer construct of motivation has been proposed, where an individual is neither intrinsically or extrinsically motivated. Amotivation refers to the absence of motivation and lacks an intention or ability to act (Ryan & Deci, 2000a, 2000b). Amotivated individuals tend to experience negative affect, including apathy, helplessness, depression and do not seek any goals. Amotivation has also been considered a multidimensional construct, and has been divided into four types. The first type is amotivation due to capacity/ability beliefs. The second type is strategy-beliefs amotivation, where the individual believes the proposed strategy will not result in the desired outcome. Third, is the capacity-effort beliefs amotivation, where the individual does not want to engage because the behaviour is too demanding and involves too much effort. A final type of amotivation is termed helplessness beliefs, and refers to the belief that one’s efforts are paltry compared to the enormity of the task to be accomplished.

A key component of the Self-Determination Theory (Deci & Ryan, 1985, 1991) is the incorporation of the subtheory, the Cognitive Evaluation Theory (CET). The Cognitive Evaluation Theory outlines the social factors that produce variability in intrinsic motivation, including certain situational factors that can be detrimental to one’s intrinsic motivation. Social factors either support or diminish one’s need for autonomy and competence and, as a result, intrinsic motivation can be facilitated or harmed (Ryan & Deci, 2000a). For example, an individual’s focus on winning and competitions can
lead to an external locus of causality which creates a lower feeling of self-determination and a loss of intrinsic motivation. Studies (Fortier, Vallerand, Briere & Provencher, 1995; Duda, Chi, Newton, Walling & Catley, 1995) have argued that external factors, such as competition, not only diminish intrinsic motivation, but promote extrinsic motivation and amotivation.

In summary, the Self-Determination Theory distinguishes different types of motivation, based on the degree of self-determination of a behaviour to achieve a goal. The different types of motivation are categorized into amotivation, extrinsic and intrinsic motivation, which are from a low degree of self-determination to a high degree of self-determination. The Cognitive Evaluation Theory is a useful subtheory of the SDT and predicts that intrinsic motivation will be reduced when individuals engage in an activity to reach a performance standard, such as when a competition occurs.

**Hierarchical Model of Intrinsic and Extrinsic Motivation**

The purpose of the Hierarchical Model of Intrinsic and Extrinsic Motivation is to provide a framework that organizes and illustrates the basic mechanisms of intrinsic and extrinsic motivational processes as represented in sport and exercise settings (Vallerand, 2001). In addition, the model incorporates the personality and social psychological components of motivation, as Vallerand (2001) stated that motivation is a result of an ongoing transaction between the person and the environment.

The Hierarchical Model illustrates the constructs of intrinsic, extrinsic and amotivation existing within an individual at three hierarchical levels of generality, from
global (or personality), to contextual (or life domain) and finally situational (or state) level (Vallerand, 2001). As well, the model incorporates determinants of motivation because as motivation is result of social factors at the three levels (global, contextual, and situational). Social factors refer to human and nonhuman factors in one’s social environment.

Global factors include the presence of a variable that is almost in very part of an individual’s life. For example, an athlete who lives year-round in a house with other athletes. Contextual factors include a variable that is reoccurring in one specific life context, but not another. For example, a coach is present in a sport context, but they do not exist in an educational context. Situational factors are variables that are only present at a given time, but are not permanent. For example, a coach giving feedback at the end of a workout. The impact of the social factors is controlled by the mediators which involve: autonomy, competence and relatedness. Autonomy is described as feeling free to choose one’s course of action. Competence is interacting effectively with the environment to experience competence from producing a desired outcome. Relatedness is the feeling connected to significant others or a feeling that one belongs to something (Vallerand, 2001). Other determinants of motivation are the hierarchical levels of motivation, in which there is a top-down effect where motivation at a given level of hierarchy can influence the next. Therefore, contextual motivation would have a stronger impact on situational motivation than on global motivation. The final element of the model are consequences that are produced by the motivation. The consequences, or motivational outcomes, can be affective, cognitive, and behavioural. The different types
of motivation lead to different outcomes, and it is hypothesized that consequences are
decreasingly positive from intrinsic motivation to amotivation (Vallerand, 2001).

Theory Summary

The original achievement motivation theory (McClelland, Atkinson, Clark &
Lowell, 1953; Atkinson, 1964, 1966; Atkinson & Feather, 1966) was developed from the
earlier works of Murray (1938). Their theory, with motive to achieve success and motive
to avoid failure, dominated the early research of achievement motivation. However, it has
become less important and subject to criticism from feminist researchers, as females were
restricted from their studies. In contemporary research, the Achievement Goal Theory
(Nichols, 1989) has become the most influential theory in sport research. More recently,
the Personal Investment Theory (Maehr & Braskamp, 1986) which is similar to the
Achievement Goal Theory, but includes a social aspect has become influential. The Self-
Determination Theory (Deci & Ryan, 1985) divided intrinsic motivation, extrinsic
motivation and amotivation into more specific categories, based on the degree of self-
determination of a behaviour to achieve a goal. Finally, the Hierarchical Model of
Intrinsic and Extrinsic Motivation is based on the notion that motivation is a result of an
ongoing transaction between the person and the environment (Vallerand, 2001). It
involves a framework for motivational processes within sport and exercise settings
through global, contextual and situational levels.
**Competitiveness**

*Definition of Competitiveness*

Many psychologists, including sport psychologists, view competitiveness as a sport-specific form of achievement motivation (Houston, Carter & Smither, 1997). Martens (1976a) admitted that the two constructs of achievement motivation and competitiveness are closely related, but believed that the competitiveness motive is a more specific form of the general achievement motive. An individual may acquire a need for achievement and competitiveness; and yet a need for competitiveness may not be present in a highly achieving person (Smither & Houston, 1992). The most common definition describes competitiveness as “a disposition to strive for satisfaction when making comparisons with some standard of excellence in the presence of evaluative others in sports” (Martens, 1976a, p. 326). Competition is defined as “a process in which the comparison of an individual’s performance is made with some standard in the presence of at least one other person who is aware of the criterion for comparison and can evaluate the comparison” (Martens, 1976b, p. 14). Therefore, social comparison must be present with at least one other person for competition to exist. On the other side of the debate, Sherif (1981) claimed that an individual could compete with themselves and competition did not need the presence of others.

Within Sherif’s (1981) work, she stated competition is not a specific kind of behaviour, but is actually a social process. More specifically:

A social process that occurs when the person’s activities are directed more or less consistently toward meeting a standard of achieving a goal in which performance,
either by the individual or by the group, is compared and evaluated relative to that of selected other persons or groups (Sherif, 1981, p. 462).

In her rationalization, she associated competition with cooperation, as cooperation is not a specific behaviour, but actually refers to the structure of activity. Thus, if you have a group of individuals who are all contributing something for a common end and therefore, cooperation is occurring. For example, within a sport team, each team member is contributing something and thus cooperating to play the game. As well, the sport teams must cooperate in some degree with each other for the competition to occur.

Sport psychologists typically view competitiveness as an adaptive characteristic for those engaged in competitive sports, but this conflicts with the views of social and personality researchers (Houston, Carter & Smither, 1997). Social and personality researchers view competitiveness as a relatively stable and enduring personality trait. Therefore, a theory of competitiveness based on personality would not include any environmental factors. In terms of sports, this would translate into high competitiveness levels for athletes throughout the different stages of their careers. For example, Houston et al. (1997) indicated that competitiveness was actually a relatively stable factor, regardless of strong environment factors, amongst tennis players.

**Competitiveness and Gender Differences**

There are several questionnaires used in today’s research to measure competitiveness. For example, one of the three dimensions measured in the Work and Family Orientation Questionnaire (WOFO; Spence & Helmreich, 1983) is competitiveness. In Spence & Helmreich’s (1983) study using a non-athletic population,
the females scored higher on work, and males scored higher on mastery and
competitiveness. Within the same study but using an athletic population, the females
scored higher on mastery and work, and males scored higher on competitiveness. The
Sport Orientation Questionnaire (SOQ; Gill & Deeter, 1988) and the Competitive
Orientation Inventory (COI; Vealey, 1986) are sport-specific measures, but differ in
several ways; including their conceptual background, format, and scoring procedures. In
fact, Gill, Kelley, Martin & Caruso (1991) made it clear that the SOQ and COI do not
measure the same thing, and are not strictly comparable. The COI, based on the works of
Nicholls (1989), measures the relative importance of performance (playing well) against
outcome orientation (winning) (Gill, 2001; Gill et al., 1991). Because of this, Gill and
her colleagues stated that the COI may only be relevant for use at the elite level.

When using the Competitive Orientation Inventory, no gender differences were
evident amongst athletes from a highschool, college and elite level (Vealey, 1988).
These results were supported by a study using college and university level athletes (Gill,
Kelley, Martin & Caruso, 1991). However, in another study (Gill, 2001) using top
ranked university athletes revealed the males scoring higher on outcome orientation and
the females scoring higher on the performance orientation. In the same study, the athletes
scored lower in outcome orientation (winning) than the non-athletic participants, but
scored higher on performance orientation (playing well). From the development of the
COI, Vealy (1988) hypothesized that gender differences within competitive orientation
and self-confidence are eliminated or reduced as athletes move to become elite
performers. As female athletes move through the ranks, they are less influenced by traditional gender roles.

The SOQ is based on the multidimensional works of Spence and Helmrich. It yields three scores of competitiveness: the desire to enter and strive for success in sports competition; win orientation or a focus on interpersonal standards and winning; and goal orientation or a focus on personal standards. Gender and athlete/non-athlete differences were present when using the SOQ. Male sport participants scored higher on the competitiveness and win orientation, while female sport participants scored as high or higher on goal orientation (Gill, Kelley, Martin & Caruso, 1991; Gill, 1988, 2001). Gill (1988) stated that females were more focused on personal goals and standards, and males were more focused on interpersonal comparison and winning.

In Houston, Carter & Smither’s (1997) study, elite tennis players completed the competitiveness subscale from the SOQ and the Competitiveness Index, developed by Smither and Houston (1992). From the professional sample, the female players scored higher than the male players on the SOQ; however, there was no difference between genders on the Competitiveness Index scores (Houston et al., 1997). Amongst the amateur sample, there was no difference between genders on either the Competitive Index or the SOQ. The researchers concluded that further research was needed to identify clearer details on the factors contributing to gender differences amongst elite athletes in achievement motivation and competitiveness.
There have been four reasons proposed for the indecisive results on competitiveness and achievement motivation between the genders. First, researchers often use the male model of behaviour as the standard to measure against, leaving the understanding of the female sport experience unexplained (Levy, 2002). Second, within the studies, different questionnaires were used (i.e., WOFO, SOQ, COI and CI). Even within a simple study (Houston, Carter & Smither, 1997) using the same samples, different results were produced according to which questionnaire was used. Third, the calibre of athletes differed between studies. For example, university level athletes were considered to be elite athletes. Finally, all these studies were structured on similar quantitative methodologies, with the use of questionnaires.

In summary, there have been indecisive results on competitiveness and achievement motivation between the genders using the different questionnaires. Even when using the same sample, results varied according to the questionnaire. Though, Gill (1988) stated that females were more focused on personal goals and standards, and males were more focused on interpersonal comparison and winning. And Vealy (1988) hypothesized that gender differences within competitive orientation and self-confidence are eliminated or reduced as athletes move to become elite performers.

**Goal Orientations**

**Definitions of Goal Orientations**

An individual’s goal orientation is the predispositions of an individual’s goal involvement. For example, a task-oriented individual is presumed to be a task-involved. However, goal orientations are not consider be a personality trait, but they are considered
to be a stable feature in an individual. As well, goal orientations are orthogonal, and thus someone can be high or low in ego and task at the same time.

**Goal Orientations and Gender Differences amongst Athletes**

Research has shown that one’s gender may also influence their motivation behaviour, as it has an impact on their cognitions, social and personal influences. In one study, White and Duda (1994) revealed that male sport participants were more ego-oriented than female sport participants on a competitive level. Similarly, Fortier, Vallerand, Briere & Provencher (1995) found that the female athletes from junior college demonstrated a higher intrinsic motivation to accomplish things and showed higher identified regulation than the male athletes. Therefore, they concluded that this reinforced the concept that females have a more self-determined motivational orientation than males. This was supported by Chantal, Guay, Dobreva-Martinova & Vallerand’s (1996) study, in which female athletes demonstrated higher levels of intrinsic motivation than the male athletes. Finally, Flood and Hellstedt’s (1990) study concluded that the male university level athletes valued competition, challenge and winning, more than the female athletes.

In contrast, Pensgaard and Roberts (2003) found no significant difference between genders on task or ego orientation in their sample of very elite athletes. This could be explained by the hypothesis that, at an elite level, females are less influenced by traditional gender roles and possess as much confidence as males (Vealey, 1988). Due to gender-role socialization, sport is largely perceived as a male activity and the sport behaviours as masculine (Vealey, 1988). Traditionally, females have felt less competent,
as well as perceiving they have less social support. Also, females have received fewer awards for sport participation and success. Vealey (1988) brings up the interesting question of “whether they are selected into elite levels of sport because of their confidence (and ability) or whether they develop high levels of confidence from competing at an elite level” (p. 476). However, Vealy’s hypothesis is not supported by the results of Gernigon, d’Arripe-Longueville, Debovc & Puvis (2003) and Ryckman and Hamel (1993)’s studies, using Grade Nine participants. Gernigon et al. (2003) reported no gender differences relating to goal involvement. Their task included a feminine element, highlighting the fact the sex-type of task may influence the goal involvement between genders. They also revealed that boys requested less help than the girls. Ryckman and Hamel (1993) found no gender difference between the genders in their importance rating of the various participation motives.

When dealing with goal orientations and athletes, usually the studies only involve task and ego orientations. Research on the social orientation is limited, especially relating to gender differences and within the sport domain. However, within an education domain involving fifth-grade students, Ryan, Hicks & Midgley (1997) reported a higher levels of intimacy goals amongst the girls and higher levels of social status goals amongst the boys when compared to the opposite gender. Anderman and Anderman’s (1999) study using a similar age category supported these results. (1997). When using university athletes, Flood and Hellstedt’s (1990) study revealed a general tendency for the female athletes to value the social aspects of participation more than the competitive aspects.
In summary, research in regards to gender and goal orientation is limited (Midgley, Kaplan, Middleton, 2001). There are two possible reasons for this omission (Hyde and Kling, 2001). The first reason is that researchers disregard the factor of gender. Second, researchers may have not uncovered any gender differences, and as such, they fail to report non-significant findings. However, the general trend amongst the research has been that the females were more self-determined motivated and the male athletes were more ego-oriented motivated (Chantal, Guay, Dobrevaa-Martinova & Vallerand, 1996; Fortier, Vallerand, Briere & Provencher, 1995; White & Duda, 1994; Flood & Hellstedt, 1990). In terms of social orientation, the tendency was for females to be more socially-oriented than the males. Research in regards to gender and goal orientation using elite athletes is even more limited, especially involving social orientation.

**Elite Athletes**

**Definition of Elite Athletes**

An elite athlete, or high performance athlete, has shown effort and persistence to reach excellence and for the purpose of this study is characterized as a person who has competed at the international level as a member of the Canadian National Rowing Team.

**Characteristics of Elite Athletes**

In studies involving the participation of elite athletes, Pensgaard & Roberts (2003) and Roberts & Ommundsen (1996) found that the athletes scored high on both task and ego orientation. It has been hypothesized that high levels of motivation are needed for
these athletes to maintain superior quality of effort for the many training sessions and through potential setbacks including injuries, in order for these athletes to reach elite levels (Hardy, Jones & Gould, 1996). Further, Hardy et al. (1996) explained that it would be every difficult to maintain high levels of motivation if there were not a high level of intrinsic motivation. Duda (1997) suggested that high task orientation serves to foster an athlete’s long-term enjoyment of the sport and a commitment to continually improve their skills.

However, as for all people, an athlete’s motivation can fluctuate, as motivation is a dynamic concept (Roberts, 2001). Unfortunately, a small change in motivation for an elite athlete can drastically impact his or her performance. Pensgaard (1999) found that task orientation scores decreased when athletes were competing at the Olympic Games, thus demonstrating that achievement motivation is a dynamic phenomenon. However, the author reported the ego orientation scores of the athletes did not change during the Games.

Within a qualitative study of elite athletes in the sport of track and field carried out by Mallett & Hanrahn (2004), the participants were characterised as both task and ego goal oriented. In their study, three key themes of motivation emerged. The main theme was the athlete’s commitment to their personal goals. In turn, the achievement of these goals provided the athletes with a sense of accomplishment which enhanced perception of competence and positively influencing self-determined forms of motivation. They reported that the athletes were motivated by both task and ego goals, as
the athletes were focused on achieving their task goal for the perfect performance, while trying to accomplish their ego goal to beat their opponents. However, some athletes in the study were driven more by their task goals than their ego goals, and vice versa. The second theme was the athlete’s strong self-belief to achieve their goals. The third theme was the fact that the athletes’ lives revolved around their sport. And because track and field was the centre of their lives, their decision making was based on their involvement in the sport (Mallett & Hanrahan, 2004).

Results using elite Bulgarian athletes (Chantal, Guay, Dobreva-Martinova & Vallerand, 1996) revealed that the female athletes demonstrated higher levels of intrinsic motivation than the male athletes. There was no significant difference between the genders with self-determined extrinsic motivation. Thus, the study implied that female athletes participated more for the pleasure and satisfaction than for extrinsic reasons. In addition, the results revealed that the better performing athletes exhibited higher levels of non-self-determined types of motivation; and reported that external rewards and feelings of obligation and pressure were their prominent sources of motivation, when compared to the low performing athletes. Therefore, Chantal et al. concluded that elite athletes have less intrinsic motivation than non-elite athletes.

These results were in contrast to Vealey’s (1988) study, where elite athletes were more performance-oriented than college and highschool athletes. Vealey (1981) explained that this was because elite athletes base their feeling of competence and satisfaction on how well they perform rather than the results. They claimed that elite
athletes have developed an ability to focus on something that it is under their personal control rather than results, which rely on the performance of others and therefore, are out of their control. As such, elite athletes exhibit a stronger task orientation and weaker ego orientation. Pensgaard (1999) found elite athlete needed to emphasize a task-orientation in order to cope efficiently at a major competitive event. They concluded an elite athlete should be encouraged to keep the focus on maintaining a high task involvement and a mastery climate, while the media and spectators emphasize a high ego involvement in terms of winning and beating others.

This leads a debate whether it is important to foster an ego-involved environment. Duda, Chi, Newton, Walling & Catley (1995) stated that elite sport is distinguished by ego involvement due to its focus on winning, according to the Achievement Goal Theory. In fact, to foster a task-involving environment may not satisfy all athletes, especially elite athletes (Harwood, Hardy & Swain, 2000). There is no research that states ego orientations have detrimental motivational consequences, but rather high ego orientations combined with low perceived competence results in negative motivational consequences (Hardy, Jones & Gould, 1996). As well, the ego-involved tasks (i.e., winning a gold medal at the Olympics) may be used as long-term goals and motivating factors for the elite athletes through long and difficult training periods (Hardy et al., 1996).

In summary, elite athletes need to be highly motivated, in order to persist during tough training sessions or for potential set backs (Hardy, Jones & Gould, 1996). As well, elite athletes appear to be high in both task and ego orientation (Pensgaard & Roberts,
2003; Roberts & Ommundsen, 1996; Mallett & Hanrahn, 2004). Finally, while some authors argue to foster a task-involvement environment, this may not satisfy all athletes, especially elite athletes (Harwood, Hardy & Swain, 2000).
Method

This study investigated the phenomenon of motivation through a qualitative approach using the Achievement Goal Theory.

Participants

The selection of participants was purposive, meaning they were selected because the investigator could learn the most from them (Thomas & Nelson, 2001). They were selected through the process of criterion-based sampling, where the criterion was set by the investigator. This study required the participants to have been named to one of Canada's two 2004 Olympic eights (8+) teams and included both the Heavyweight Women's (8+) and the Heavyweight Men's (8+). At the 2003 World Rowing Championships, the Women's 8+ captured a bronze medal and the Men's 8+ defended their World Champion title, to make it two years in a row. Therefore, both crews were similar populations in the fact that they were ranked in the top three of their category internationally the year before the study was completed.

Recruitment of participants was initiated after approval of the study from the University of Victoria Human Ethics Research Committee and Canada's national rowing organization, Rowing Canada Aviron. The potential participants were contacted through personal communications with the rowers, coxswains and their respective coaches of the Canadian National Rowing Team. First, the coaches were contacted by electronic mail to advise them of the study and to request for their cooperation. Second, potential participants were contacted by electronic mail inviting them to participate in the study.
Thirteen athletes of the potential sixteen met the criterion and volunteered to participate in the study, eight females and five males. The mean age of the rowers was 26.6 years, with the female average at 27.3 years and the male average at 25.6 years. The females averaged 8.4 years of rowing experience, with 3.9 years representing Canada. The male rowers averaged 6.6 years of rowing experience, with 4 years representing Canada. In total, including the last regatta before the Olympics, the rowers had cumulatively earned 58 medals from Junior Worlds, Under 23 Worlds (Nation’s Cup), World Cup Regattas, Pan Am Games, and World Rowing Championships. The females earned 28 of these medals, and the males earned the remaining 30 medals. No participant had an Olympic medal nor had raced at the Olympics before.

Procedures

On agreement to participate in the study, participants were asked to read and sign a consent form which included detailed information of the time commitment involved, and that their identity would be kept confidential and knowledge that they could remove themselves at anytime from the study. Data were collected through an in-person interview format as the purpose of interviewing was to discover what was in the rower’s mind, including their thoughts and views (Patton, 1990). The interviewer was an essential component to this study as “the quality of the information obtained during an interview is largely dependent on the interviewer” (Patton, 1990, p. 279). Through a standardized open-ended interview format, a set of questions was prepared and asked of every participant (see Appendix A for the Interview Schedule). The development of the interview schedule was a three step process. First, the questions were derived from questions used in previous motivation studies and in discussion with colleagues, then
reviewed by an expert sport psychologist and finally, tested through four pilot interviews. The interview schedule allowed for each participant to go through the same sequence, but also allowed flexibility for the interviewer to probe. Patton (1990) explained the advantages to using a standardized open-ended interview format. These included how the exact interview schedule could be inspected by outside viewers for credibility and variation between the interviews is minimized amongst participants. Each interview was between 45 to 80 minutes long. Each interview was recorded using a tape recorder and later was transcribed verbatim. Validation of the transcription occurred through member-checking by the participants who reviewed the transcripts for accuracy. Finally, in a post-hoc situation, participants were asked to provide their post-Olympic feelings in the form of three questions by electronic mail (see Appendix B for Follow-Up questions).

**Timeline**

Four pilot interviews were carried out with university level rowers to check the clarity of the questions, to acquire the amount of time needed for each interview, and to provide further experience for the interviewer. Location of the interviews occurred at the National Team Training Centre located in London, Ontario. All interviews occurred a month before the opening ceremonies of the 2004 Olympic Games, so the results of the Olympics did not influence the answers. Member checking occurred by electronically mailing the transcribed interviews back to the participants to be checked. This validation occurred post-Olympics, in November 2004 as it took some time for the athletes to arrive back to Canada and interviews to be transcribed. The Follow-Up questions were also conducted at this time.
Analysis

The challenge of analysis in qualitative studies is to make sense of mass amounts of data, identify the significant patterns and construct a framework to present the results. This study involved an inductive analysis approach with the purpose to condense large amounts of raw data into a summary format. An inductive analysis approach was selected so the patterns emerged from the raw data without being constricted by structured methodologies. This allowed for new themes to appear which may have been previously ignored through the process of deductive data analysis, which is often used in experimental and hypothesis testing.

Once the interviews were transcribed verbatim and member checked, the raw data was organized assisted by NUD*IST, a qualitative computer software analysis program. The raw data for each gender and sets of questions were kept separate. Significant statements from the interviews were identified and then clustered into lower order themes. The lower order themes were then clustered into higher order themes. Finally, the themes were classified in the context of Achievement Goal Theory, and then compared for similarities and differences between genders.

Criteria for Judging the Quality of Research Designs

There are no straightforward test for reliability and validity. However, since there was an intention to contribute to the research literature, validity and theoretical generalizability were critical (Patton, 1991). Qualitative research tends to suffer on the
generalizability of external validity, for only a small number of participants are used and without the act of random sampling (Thomas & Nelson, 2001). The strongest argument for external validity in qualitative research is user generalizability, where the reader of the study is able to evaluate the study and determine how it applies to their situation (Thomas & Nelson, 2001). To help provide credibility to the study, several methods were involved, including:

1. To increase construct validity, a draft of the study was reviewed by a key informant (Yin, 1994).

2. To increase internal validity, member checking of the interview transcripts occurred.

3. To increase internal validity, the investigator’s own bias was acknowledged and clarified (Thomas & Nelson, 2001).

4. To increase internal validity, personal relationships were established with the participants (Thomas & Nelson, 2001). In this study, the investigator had the unique position of being a past team member of the rowers involved, and personal relationships were already formed.

5. To increase internal validity, pilot interviews were conducted to check the clarity of the questions, to make the interviews as effective in the time allotted, and to provide more experience for the interviewer.

6. To increase internal reliability, the interviews were transcribed verbatim.
Limitations

There were several limitations to this study, including:

- The use of retrospective opinions, as the questions asked the participants to reflect and report on their individual motivation experience.
- Type III error with the interview questions. The potential that any of these questions did not measure what they were suppose to measure.
- Possible participant bias and/or researcher bias.
- Time constraints. Because of the rower’s busy schedule, time for interviews was limited.

Delimitations

This study was delimited by the following factors:

- Participants were five male and eight female Canadian high performance rowers, who represented Canada at the 2004 Olympics in Athens in the Men’s and Women’s Heavyweight 8+s.

Assumptions

There were several assumptions to this study, including:

- It is assumed that the rowers answered the questions truthfully.
- It is assumed that all of the rowers’ participation was completely voluntarily.
Definitions of Terms

The following definitions are motivation research terms used for this study:

Achievement Motivation – a process in which an “individual becomes motivated, or demotivated, through assessments of his or her competencies within the achievement context and of the meaning of the context to the person” (Roberts, 2001, p. 6).

Competitiveness - “a disposition to strive for satisfaction when making comparisons with some standard of excellence in the presence of evaluative others in sports” (Martens, 1976a, p. 326).

Task Involvement - based on the individual’s personal performance of the task with little concern for the outcome and the “goal of action” is to develop mastery, improvement and/or to learn a task (Nicholls, 1989).

Ego Involvement – when an individual’s “goal of action” is to demonstrate superior ability relative to others, especially outperforming others (Nicholls, 1989).

Self-Referenced Ego Involvement - relates to when an individual is focused on evaluating one’s current personal skills to oneself, as well one has a self-referenced criteria of success (Harwood, Hardy & Swain, 2000; Roberts, 2001).

Task Orientation – Task-oriented individuals are assumed to become task-involved and believe hard work and cooperation lead to success (Roberts, 2001).

Ego Orientation – Ego-oriented individuals are assumed to become ego-involved and view success is achieved through having high ability (Roberts, 2001).

Social Orientation - Social orientated individuals who participate to experience of affiliation through the development of close social relationships and having fun with
others; and/or experience social validation, through social status amongst peers, as well as recognition from others and social standing (Allen, 2003).

The following are definitions for the rowing terms used for this study:

**Rowing** – an Olympic sport, that involves racing a distance 2000 m in a boat with one or two oars per person.

**Pack row** – a practice situation involving two or more boats, that start each workout piece side by side. The practice is usually an organized format and is dictated by the coach or coxswain.

**“On your Own” row** – a practice situation where the boats row around the lake by themselves. This type of practice is usually unstructured for the most part, though may contain requirements.

**Time trial** – a timed piece, over a pre-determined distance. Boats go off the start line in single file, typically in thirty second gaps.

**Small boats** – a single (1X), a pair (2-), or a double (2X).

**Big boats** – a four (4-), a quad (4X) or an eight (8+).
Results

The interview questions were organized into five main categories, which are: Motivation for Participation, Views on Success and Failure, Views on Winning and Mastery, Views on the Importance of Teammates, and the Implementation of Different Types of Motivation. The significant responses from each of the questions were classified into groupings based on Achievement Goal Theory; in which the motivational differences and similarities were compared.

Motivation for Participation

The category of Motivation for Participation was based on three interview questions, which was later combined into two sub-categories: Why They Have Continued with the Sport and Why They Find the Sport Worthwhile.

Why They Have Continued with the Sport

The responses for Why They Have Continued with the Sport (see Figure 1.) revealed more similarities than differences between the genders, and illustrated the presence of ego, task and social-oriented themes amongst the rowers.

Ego orientation.

From an ego-oriented point of view, there was only one second-order theme identified for both genders, which was Results/Winning. This was framed by the effects of early success or reinforcement from coaches. The rowers consistently talked about how the coaches had seen potential in them, or how they had had success results. It was interesting to note, how some of the rowers had some early positive feedback from the
<table>
<thead>
<tr>
<th>Motivational Themes</th>
<th>2nd Order Themes</th>
<th>1st Order Themes</th>
<th>Raw Data Themes</th>
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<tbody>
<tr>
<td><strong>Females</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ego Orientation</td>
<td>Results/Winning</td>
<td>Had success with the sport</td>
<td>The success kept coming</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>My novice year was very successful</td>
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<td></td>
<td>I was pretty good compared to some</td>
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<td>I had a good result</td>
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<td></td>
<td>Coaches</td>
<td>He also made me realize that potentially I could go further than I initially thought</td>
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<tr>
<td></td>
<td>encouraged</td>
<td></td>
<td>My coach saw a lot of potential</td>
</tr>
<tr>
<td></td>
<td>them to continue</td>
<td></td>
<td>My novice coach was very encouraging to keep training and try out for the National Team</td>
</tr>
<tr>
<td></td>
<td>(saw potential)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Orientation</td>
<td>Challenge</td>
<td></td>
<td>It's such a challenge.....you can always improve</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>I guess I could be better. I wanted to be better</td>
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<tr>
<td></td>
<td>Passion</td>
<td></td>
<td>I felt it was a passion</td>
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<td></td>
<td></td>
<td></td>
<td>I like the feeling of the water</td>
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<tr>
<td></td>
<td>Learning/Personal Development</td>
<td>Life skills and self development</td>
<td>It makes me a better person, I think it makes me more discipline.....learning team skills, working skills, it's all things I think</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>I can leave the sport afterwards and think I had a great experience</td>
</tr>
<tr>
<td>Social Orientation</td>
<td>Affiliation</td>
<td>Friendships</td>
<td>Friendships I made</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>I had a lot of friends in it</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>The people I have met</td>
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<td></td>
<td></td>
<td></td>
<td>My friends</td>
</tr>
<tr>
<td><strong>Males</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ego Orientation</td>
<td>Results/Winning</td>
<td>Had success with the sport</td>
<td>I had always been successful since day one</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Saw potential</td>
<td>Fairly, I think we did an undergrad rowing classic and my crew would have won</td>
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<tr>
<td></td>
<td></td>
<td>Competing</td>
<td>I saw potential in myself as well as other people saw potential in myself</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>I like winning and if there were no competitions I would not be training</td>
</tr>
<tr>
<td>Task Orientation</td>
<td>Personal</td>
<td>Challenge</td>
<td>I wanted to kinda finish what I started</td>
</tr>
<tr>
<td></td>
<td>Accomplishment</td>
<td></td>
<td>I want to be one thing better than anyone else.....Wanting to achieve excellence</td>
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<td></td>
<td></td>
<td></td>
<td>I wanted to see how far I could take something in the extreme</td>
</tr>
<tr>
<td></td>
<td>Enjoyment</td>
<td>Enjoyment</td>
<td>Have fun</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>I like what I am doing</td>
</tr>
<tr>
<td></td>
<td>Learning/Personal Development</td>
<td>Self improvement</td>
<td>I enjoyed</td>
</tr>
<tr>
<td>Social Orientation</td>
<td>Affiliation</td>
<td>Friendships</td>
<td>Sport does develop hard working, perseverant individuals</td>
</tr>
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<td></td>
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<td></td>
<td>I stuck around largely because of the social aspect, they were great people. To be around and it made the training a lot more doable</td>
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<td></td>
<td>I have met cool people</td>
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<td></td>
<td></td>
<td></td>
<td>Meeting a lot of people, just good camaraderie of a crew</td>
</tr>
</tbody>
</table>

*Figure 1.* The significant female and male responses from the interview question of *Why They Have Continued with the Sport* classified into ego, task and social oriented themes.

coach, which acted as a catalyst for their continuation in the sport. The one ego-oriented
difference between genders amongst the first-order themes was the necessity for
competing amongst the male rowers, as one male mentioned openly that “I like winning
and if there were no competitions, I would not be training”.
Task orientation.

From a task-oriented point of view, three themes of motivation were identified. There were Personal accomplishment, Enjoyment, and Learning/Personal development. The prevalent response involved the motivation for personal accomplishment. Some of the rowers indicated that it was the challenge, either physical or mental, of the sport that made them continue. Many saw the challenge in terms of how far they could get in the sport, how fast they could go, or how much they could improve. One female rower stated how “you never reach your maximum limit or your perfection level and it continues to intrigue me”. A male rower talked about how he reached a certain level and then wanted more. He went on to state that “I wanted to try to be faster, just a little faster, a little bit faster, and it is so motivating because at this level a small improvement represents a huge amount of effort that has been put into it.”

The second task-oriented theme was Enjoyment. The female rowers talked more about the feeling of “being on the water” and the passion involved, where as the male rowers discussed it from the perspective of general enjoyment. Both genders were similar with the theme of Learning/Personal development, as both genders discussed how the sport contributed to their self-development as individuals. One female rower said that “I think it (rowing) makes me a better person”, when referring to the team skills she was learning and how to be more disciplined.

Social orientation.

Social orientation was present within both gender’s responses. The rowers talked about team camaraderie, the people that they have met, and the relationships that have
developed. A female rower stated how she gains “this almost instantaneous bond with other people in your boat”. A male rower talked about who he “stuck around largely because of the social aspect, they were great people to be around and it made the training a lot more doable”.

**Why They Find the Sport Worthwhile**

Similar to Why They Have Continued with the Sport, the responses for Why They Find the Sport Worthwhile (see Figure 2.) demonstrated more similarities than differences between the genders. The rowers’ responses were categorized into task and social oriented themes. There was an absence of ego-oriented themes.

<table>
<thead>
<tr>
<th>Motivational Themes</th>
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<th>Raw Data Themes</th>
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<tbody>
<tr>
<td><strong>Females</strong></td>
<td></td>
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<tr>
<td><strong>Task Orientation</strong></td>
<td>Learning/Personal Development</td>
<td>Life lessons and skills</td>
<td>Everything I have learnt...being in a partnership or a team, about communication, about working hard, being patient, being relaxed...</td>
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<td></td>
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<td>The discipline, the logic, the perseverance and persistence</td>
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<td>Like while learning...how to just all those skills that are so important</td>
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<td>More prepared for life</td>
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<td></td>
<td>The lessons that I have learned</td>
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<td></td>
<td>Everything that I am is left...I have all these things that are beneficial to life</td>
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<td></td>
<td></td>
<td></td>
<td>All those life experiences</td>
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<td></td>
<td>Enjoyment</td>
<td>Enjoyment</td>
<td>Just knowing that I enjoyed the process</td>
</tr>
<tr>
<td><strong>Social Orientation</strong></td>
<td>Affiliation</td>
<td>Friendships</td>
<td>Enjoyed the people I met</td>
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<td>I think just the friendships</td>
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<td><strong>Males</strong></td>
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</tr>
<tr>
<td><strong>Task Orientation</strong></td>
<td>Learning/Personal Development</td>
<td>Life lessons and skills</td>
<td>Like life lessons</td>
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<td></td>
<td>A different way of dealing with people, a different philosophy</td>
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<td>You can achieve a lot of things but it is more than putting your mind to it you need to sit down and say this is what I need to do to get from here to there then the very difficult thing is doing it right</td>
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<td></td>
<td></td>
<td></td>
<td>Work ethic</td>
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<td>Work ethic that you can now take to any part of your life</td>
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<td>Take away memories</td>
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<td>Accomplishments</td>
<td>Memories</td>
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<td></td>
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<td></td>
<td>And the accomplishment and the work that you put into it and that makes the accomplishment</td>
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<td>I ultimately believe that I can pretty much do anything I want if I put my focus to it</td>
</tr>
<tr>
<td><strong>Social Orientation</strong></td>
<td>Affiliation</td>
<td>Friendships</td>
<td>Friends</td>
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<td>Friendships</td>
</tr>
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</table>

**Figure 2.** The significant female and male responses to question Why They Find the Sport Worthwhile classified into task and social oriented themes.
**Task orientation.**

The dominant response for both genders was the task-oriented theme of learning Life lessons and skills. However, the second task-oriented theme was Enjoyment for the female rowers and Personal accomplishments for the male rowers. Each of these responses were absent in the opposing gender’s responses. Illustrating the theme of Enjoyment, one female rower stated:

Regardless if I went to the Olympics or not, I think I would walk away just knowing that I enjoyed the process, I enjoyed the training lifestyle, enjoyed the people I met... all the positive things I learnt....if I didn’t love it I wouldn’t be here.

**Social orientation.**

Social orientation was similar for both genders. Several of the rowers mentioned about the friendships that formed. One female rower stated that

The people I met up to this day are the most phenomenal people I have very had the pleasure, not only competing with but getting to know and hearing about their different life experiences, and it is just been really worthwhile because of that.

**Views on Success and Failure**

The category of Views on Success and Failure was based on three interview questions, *What Makes You Feel Successful*, *What Makes You Feel Less Successful*, and *What You Think it Takes to be Successful*.

**What Makes You Feel Successful**

The rowers’ responses to *What Makes You Feel Successful* were divided into ego, task and social oriented themes (see Figure 3.).
Ego orientation.

Many rowers would start to answer what made them feel successful with an ego-oriented response, for example winning a gold medal or a good result. However, several rowers were quick to continue with their response by stating that it was the process part that was more important than the end product (e.g., a medal), thus moving from an ego-oriented view to a task-oriented view. They believed that success was not limited to good results. One female rower stated that:

Success does not have to have a result... you can’t control what other crews are doing and we know where we are and we know what we want to achieve so if there’s no medal or an unexpected result, if we have honestly raced our best race then we are still successful.

Another female discussed how she thought:

You can be successful without a winning, like it is always better to be winning and it feels nicer, but I think if you give your maximum you give your best, you are successful no matter what the outcome is.

The same theme continued with the male rowers. One male talked about how he felt:

The most successful with personal achievements, obviously winning the world championships is ... all come together, but I find there is bigger gains just with practicing within the crew...day by day improving and see in yourself maybe moving up on the standard with the crew....I enjoy the process almost more than the product, the outcome or gold medal helps, it is nice to know that it pays off.

Another male rower talked about how:

Sometimes success is measured by how hard did we pushed when we are very very tired.......the boat was not extremely fast but we were given everything that we could give and sometimes that is a big measure of success too, how well you do when the deck is stacked against you.

Task orientation.

There were several differences between the genders to note. The female task-oriented answers were heavily dominated with the response that they felt successful when
they made a technical change and thus improved their rowing stroke. Technical improvement was not present amongst the male responses. Improving a Personal best was present amongst the female rowers, but absent from the males’ responses. The male answers were dominated by Personal accomplishments, where only one female made reference to Personal accomplishment.

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<tbody>
<tr>
<td>Females</td>
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</tr>
<tr>
<td>Ego Orientation</td>
<td>Results</td>
<td>Good results</td>
<td>Win a race, do well in seat racing, make a boat</td>
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<td></td>
<td></td>
<td></td>
<td>Or do well internationally. Results drive me.</td>
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<td></td>
<td>Winning medal or having a good performance internationally</td>
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<td>Body responding in a positive way</td>
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<td></td>
<td>Results</td>
</tr>
<tr>
<td>Task Orientation</td>
<td>Improving Technique</td>
<td>Technical Improvement</td>
<td>Feedback that I have changed something technically</td>
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<td></td>
<td>Personal Accomplishment</td>
<td>Sense of accomplishment</td>
<td>When I finish or accomplish a really good workout</td>
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<td>Effort</td>
<td>Maximum Effort Given</td>
<td>Honestly need our best race</td>
</tr>
<tr>
<td></td>
<td>Improving a Personal Best</td>
<td>Pulling a PB</td>
<td>This was my maximum, I couldn’t be better.</td>
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<td>Given it all I can do</td>
</tr>
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<td></td>
<td>Social Orientation</td>
<td>Affiliation</td>
<td>Pulling a PB</td>
</tr>
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<td></td>
<td>Good team cohesion</td>
<td>When you have a PB on an erg</td>
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<tr>
<td>Males</td>
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</tr>
<tr>
<td>Ego Orientation</td>
<td>Results</td>
<td>Good results</td>
<td>When we win</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Winning world championships</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Winning a medal</td>
</tr>
<tr>
<td>Task Orientation</td>
<td>Personal Accomplishment</td>
<td>Sense of accomplishment</td>
<td>When I feel like we have reached a new level of achievement</td>
</tr>
<tr>
<td></td>
<td>Effort</td>
<td>Maximum effort is given</td>
<td>With personal achievements</td>
</tr>
<tr>
<td>Social Orientation</td>
<td>Social Status</td>
<td>Recognition/ Social Functions</td>
<td>Much is internalize success</td>
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<td></td>
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<td></td>
<td>How hard did we pushed when we are very very tired</td>
</tr>
</tbody>
</table>

*Figure 3.* The female and male responses to *What Makes You Feel Successful* classified into ego, task and social oriented themes.

**Social orientation.**

A difference between the genders was found in the social orientated themes. One female talked about her team coming together as a group to be seen as success. A male
rower talked about how he felt successful when he attended functions or was on television. He felt these events recognized the hard work he has accomplished. This was categorized as a Social status theme.

**What Makes You Feel Less Successful**

The responses to *What Makes You Feel Less Successful* (see Figure 4.) introduced a new theme of “Sense of Self” for both genders. The female responses also included ego, task and social oriented themes, while the male responses only included task-oriented themes.

**Ego orientation.**

One noticeable difference between genders was the lack of ego-oriented themes, like losing a race or poor results, from the male responses. An ego-oriented theme of Lack of Results was present with the female responses.

**Task orientation.**

For both genders, the task-oriented theme of Failing to Meet Expectation was present. The rowers felt less successful when they knew they could have done better or when they did not achieve the goal they had set.

**Social orientation.**

There was a lack of social oriented themes within the male’s answers. From the female responses, a social oriented theme appeared in the form of feeling part of a group. Within this theme, a female’s feeling of failure came from an external factor, which resulted in an internal feeling of letting down her teammates. She explained:
I feel less successful if I am being coached a lot and no one else is being coached, like if we are in the eight and I am getting all the attention, I feel like some people would say I am the anchor or I am the one holding the boat back.

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<th>1st Order Themes</th>
<th>Raw Data Themes</th>
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<tbody>
<tr>
<td><strong>Females</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Ego Orientation</td>
<td>Lack of Results</td>
<td>Losing</td>
<td>When I get beaten, moving the boat slowly</td>
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<td></td>
<td></td>
<td></td>
<td>Results driven</td>
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<td></td>
<td></td>
<td></td>
<td>The results should have been different</td>
</tr>
<tr>
<td>Task Orientation</td>
<td>Failing to meet expectation</td>
<td>Failing to meet expectations</td>
<td>When you know you could have done better</td>
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<td></td>
<td>My performance does not meet my expectations</td>
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<td>When I know I could do better</td>
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<td>I don’t obtain the goal I set myself</td>
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<td></td>
<td>Boat not moving well</td>
</tr>
<tr>
<td>Social Orientation</td>
<td>Failing Affiliation</td>
<td>Let People down</td>
<td>When I have let my teammates down</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>When I am being coached a lot, people perceive that I am holding the boat back.</td>
</tr>
<tr>
<td>Sense of Self</td>
<td>Lack of Self-Reliance</td>
<td>Injury/Lack of Control</td>
<td>When things are kinds of out of my hands, like injury</td>
</tr>
<tr>
<td></td>
<td>Lack of Confidence</td>
<td>Lack of Personal Responsibility/Self Doubt</td>
<td>When you are injured.</td>
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<td></td>
<td>When you are looking at other reasons for why you are not working, blaming wind.</td>
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<td></td>
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<td></td>
<td>When I have doubts</td>
</tr>
</tbody>
</table>

| Males               |                  |                  |                |
| Task Orientation    | Failing to meet expectation | Failing to meet expectations | Have not fulfilled my criteria |
|                     |                  |                  | When we don’t do what we know we can do |
| Sense of Self       | Lack of Self-Reliance | Injury/Lack of Control | When I am injured |
|                     | Lack of Confidence | Struggling/Self Doubt | When you are at the back of the pack and you feel like you are pulling as hard as you can |
|                     |                  |                  | Middle of winter |

**Figure 4.** The Female and male responses to *What Makes You Feel Less Successful*, which introduced the new theme “Sense of Self”.

**“Sense of Self”**.

The new theme of “Sense of Self” included the Lack of Self-reliance and Lack of Confidence. The Lack of Self-reliance refers to one’s feeling of lack of control when they were injured, and the Lack of Confidence involves the moments of self-doubt. A female rower described the feeling of a lack of control by stating “when you are injured...you get a sense that you are falling off. You are falling off pace, you are falling off track, you are behind and your teammates are moving on.” A male athlete described his feeling of a lack of control as when:
I am not getting better no matter what I do, it is not getting better and like day in day out you are just ...like at the bottom of the barrel and you just feel like when am I going to get out of this, so I think that just being injured and something that seemingly out of your control.

**What You Think it Takes to be Successful**

Responses from What You Think it Takes to be Successful (see Figure 5.) included task-oriented, social oriented and “Sense of Self” themes. A new theme of Uncontrolled Factors was introduced amongst the female responses only. Ego-oriented themes were absent from both genders.

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<thead>
<tr>
<th>Motivational Themes</th>
<th>2nd Order Themes</th>
<th>1st Order Themes</th>
<th>Raw Data Themes</th>
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<tbody>
<tr>
<td>Females</td>
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<tr>
<td>Task Orientation</td>
<td>Effort</td>
<td>Work ethic/Hard work</td>
<td>A really good work ethic, Hard work, Hard work, Hard work</td>
</tr>
<tr>
<td>Social Orientation</td>
<td>Intimacy Goals</td>
<td>Team Cohesion</td>
<td>Coming together as a team, Support from your teammates, Buy into your peers, team building</td>
</tr>
<tr>
<td>“Sense of Self”</td>
<td>Self-Motivation/Self-Reliance</td>
<td>Support</td>
<td>Good coaching, Determined, Determination, Determination</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Self-Motivation/Self-Reliance</td>
<td>Passion about the sport, Desire to be better, All the little things and putting them together, Leave no stone unturned, The appreciation that it is okay to mess up</td>
</tr>
<tr>
<td>Uncontrolled Factors</td>
<td>Genetics</td>
<td>Natural Talent</td>
<td>Naturally gifted athletes, Natural talent</td>
</tr>
<tr>
<td></td>
<td>Time</td>
<td>Time/Patience</td>
<td>Lot of patience, lot of time, A lot of time</td>
</tr>
<tr>
<td>Males</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Orientation</td>
<td>Effort</td>
<td>Work ethic/Hard work</td>
<td>Hard work ethic, Lot of work</td>
</tr>
<tr>
<td>Social Orientation</td>
<td>Affiliation</td>
<td>Support</td>
<td>Surrounding yourself with the right people, Leadership</td>
</tr>
<tr>
<td>“Sense of Self”</td>
<td>Self-Motivation/Self-Reliance</td>
<td>Mental toughness</td>
<td>The mental toughness that we have learned during the winter training, To keep moving instead of taking a hit and fall off, Instilling the right mental attitude</td>
</tr>
</tbody>
</table>

*Figure 5.* Female and male responses to *What You Think it Takes to be Successful*, including a new category of Uncontrolled Factors.


*Task orientation.*

A common task-oriented themed response for both genders was Effort, as they believed to become successful one must have a good work ethic and are willing to put in hard work.

*Social orientation.*

Social factors for both genders included Support, as some of the rowers believed you should surround yourself by the best coaches and the best athletes. However, a social difference between genders was that several female rowers felt that team cohesion produced success. There was no mention of team cohesion from the males.

*"Sense of Self".*

The dominant answer for both genders for *What You Think it Takes to be Successful* was the self-motivation and self-reliance, within the "Sense of Self" theme. Both genders agreed that an athlete must be determined, had the dedication and desire to be successful. One male rower described it as:

> Having a desire and drive to push through and accept that some days will not be your best, but you can always get something out of it....you are not having your best day and next day come out and try to do better....solid drive of you are going to keep moving instead of taking a hit and fall off.

Another male rower talked about the importance of the mental aspect. He stated how it was:

> So valuable for instilling the right mental attitude in the group, at this level everyone is pretty fit...the Americans are fit, the Germans are fit, and it is the mental side so valuable and it is his (the coach) leadership that really instilled that in us.
**Uncontrolled factors.**

A new theme of Uncontrolled Factors was introduced by the female rowers only. Two uncontrolled factors revealed by the females were genetics and time. According to some female rowers, good genetics and a lot of time were required for success. It was interesting to note that genetics, a physical attribute, was only mentioned once by females, but mental attributes were mentioned numerous times between both genders.

**Views on Winning and Mastery**

The category of Views on Winning and Mastery was based on four interview questions, *Why They Race, The Importance of Winning, The Importance of Mastering the Skill of Rowing, Who was their Most Difficult Competitor was.*

**Why They Race**

Responses from *Why They Race* for both genders (see Figure 6.) were categorized into only ego and task-oriented themes.

**Ego orientation.**

Both genders discussed Social comparison in the ego-oriented view, as they described how they raced to quantify their training and to receive a measure. For the female rowers, this was the key response. One female rower explained racing as “a true measure of your own skill level” and continued to say “I enjoy the opportunity to try to win ... we train so hard, so racing is the measure of all the work you have done or obtaining a result that is favourable.” Another female rower linked racing as the exam of all of their training, and the result of the race was their grade.
However, one difference between genders was the ego-oriented theme response to win. Three males directly talked about how they raced to win or for the glory of winning. No female mentioned the reason why they race was to win, as demonstrated in the previous quote where the female rower mentioned “the opportunity to try to win”, but no female stated a direct “to win” within this question. In a later questions, the females did acknowledge that it is their goal to win the race. However, within this question, the females discussed more from the task-oriented view of testing their limits.

<table>
<thead>
<tr>
<th>Motivational Themes</th>
<th>2nd Order Themes</th>
<th>1st Order Themes</th>
<th>Raw Data Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ego Orientation</strong></td>
<td>Social Comparison</td>
<td>To quantify your training, to see the results of your training (to get a measure)</td>
<td>Gives me a chance to see what all the training has been doing... see where I fit in compared to other people</td>
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<td></td>
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<td></td>
<td>A true measure of your own skill level, a measure of all the work you have done</td>
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<td></td>
<td></td>
<td>To quantify and to get a result on the hard training... get a bit more of sense of to where you stand</td>
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<td>Another way of measuring yourself, measuring your speed, measuring how hard you have pushed and how tough you are</td>
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<td>It’s good to see your training, it give you a chance to see how successful your last 11 or 10 months was compared to the rest of the world</td>
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<td></td>
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<td></td>
<td>Thinking so hard on the same stroke over and over again and then putting it all</td>
</tr>
<tr>
<td><strong>Task Orientation</strong></td>
<td>Personal Achievement/Surpass Expectations</td>
<td>Test your limits, see your potential (to test)</td>
<td>To see what I can do, to see how focussed I can be, how much I can push my body physically, to see my potential is</td>
</tr>
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<td></td>
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<td></td>
<td>Test of your own training and your own mental state</td>
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<td></td>
<td>You do get to see your limitations and get over to that where is your edge.... to reach your maximal potential</td>
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<td></td>
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<td></td>
<td>Just testing yourself, like testing how far you can go</td>
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<td></td>
<td>Positive Emotions</td>
<td>To feel the emotions</td>
<td>Because it is exhilarating, you get a rush out of it</td>
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<td></td>
<td>The excitement</td>
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<td></td>
<td>When you have the butterflies</td>
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<td></td>
<td></td>
<td></td>
<td>I just love the feeling</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Males</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ego Orientation</strong></td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td><strong>Task Orientation</strong></td>
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</tbody>
</table>

Figure 6. The Female and male responses to Why They Race.
Task orientation.

Both genders acknowledged the positive emotions they felt pertaining to the race as one of the reasons why they raced. One female rower simply stated she raced “because it is exhilarating, you get a rush out of it.” A male rower described the racing experience as:

For a whole week you are absolutely terrified but there is 15 minutes on Sunday when you do not ever feel more alive for that chunk of time, sort of the 5 minutes right before the horn goes, and the four minutes after the race and all the time in between it, and there’s just the colours are brighter, I don’t know it is a little surreal.

The Importance of Winning

Seven of the eight female rowers interviewed stated that winning was important, but it was not the most important thing when asked about the importance of winning. They stated their goal was to win, and that was what they train for, but to win was not the only thing. One female rower explained what was more important than winning to her as:

I think there are some bigger factors that you can pull out of a race or an Olympic experience that are more important than actually winning. Achieving your best performance, like coming together...overcoming adversity, sometimes some of those...can have just as much satisfaction than actually winning. You can still be successful without winning.

Another female simply stated that “I can’t either beat myself up or love myself because of a six minute race.”

However, all the male rowers stated that winning was very important as it was what they set out to do. One male continued to explain that:

Pretty much everything within this program...is build around winning, and there is a lot of times in lower lever sports is build around having fun and everyone gets a chance, but I think at this level I am in it to win.
Another male rower stated that “at this level, I think success is directly correlated to results. In my mind I am not going to the Olympics as a tourist, I am going there as a competitor to win.”

The Importance of Mastering the Skill of Rowing

When asked about the importance of mastering the skill of rowing, every rower expressed that it was important to work towards mastering the skill. However, several rowers expressed their belief that no one could fully master the skill of rowing. One male rower explained that:

I think mastery of the skill never comes, especially in something like this sport, you are probably foolish to think that it ever could but as long as you are moving towards like always trying to move towards that, that’s really important to be progressing towards technically perfection or mental perfection.

A similar statement was made by a female rower. She stated that:

I don’t think mastering the skill is so important its how you go about to trying to master it, the process along the way. It is not the actual product of mastering the stroke, no, because I don’t know if that is ever possible, but trying to achieve that.

Both genders also expressed that in order to achieve their goal of winning, good technique was required. Therefore, it was important for the rowers to try to master the skill of rowing. For example, one male rower described how being physically smaller, he thought trying to master the stroke become an important factor because he thought “we need all the inches we can get” that came with better technique.

Their Most Difficult Competitor

Each rower was asked who they thought their most difficult competitor was. Half of the female rowers replied with the response “myself”. One female rower explained her answer by stating “I think it is yourself actually because in the end you cannot control
anyone else, you can control yourself and you can let yourself lose or you can push
yourself to win”. Other difficult competitors for the females included teammates either
from their past or present, anyone who wants it, and a particular country. For the males,
the most common answer was a specific country. Two male rowers did mention
themselves, as one explained that “you know there are guys there to compete against but I
think the hardest part is competing day in day out within yourself.” Another male
mentioned his coach his second most difficult competitor.

Views on the Importance of Teammates

The category of Views on the Importance of Teammates was based on how
important it was for the rower to be part of the team and whether they would be
motivated to be a single sculler.

Importance of Teammates

Only social oriented themes were present in the responses on the Importance of
Teammates from both genders (see Figure 7.).

Social orientation.

All the females expressed a great importance of having teammates and creating a
team environment. The dominant response on how their fellow teammates impacted
them as individuals was the notion that their teammates push them to go harder as
athletes. In addition, their teammates motivated and influenced them for the better. One
female rower explained how the team environment made her physically push harder by
stating: “I think the team environment pushes you harder as an individual in training
especially since we train in pairs we are constantly measured beside your crewmates.”

Another female rower also explained how her teammates impacted her, by saying:

I think especially when you are doing hard pieces with other people, you can draw strengths from other people. Like if you see someone really giving her best, you are like ‘oh, I can’t sit back’, it encourages, it motivates you to give it as much as the other person.

<table>
<thead>
<tr>
<th>Motivational Themes</th>
<th>2nd Order Themes</th>
<th>1st Order Themes</th>
<th>Raw Data Themes</th>
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</thead>
<tbody>
<tr>
<td><strong>Social Support</strong></td>
<td><strong>They push me</strong></td>
<td><strong>Pushes you harder as an individual</strong></td>
<td>Pushes you harder as an individual in training... constantly measured beside your crewmates</td>
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<td></td>
<td><strong>harder as an</strong></td>
<td><strong>To keep myself honest making sure that I am working just as hard as everybody else</strong></td>
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<td></td>
<td><strong>individual</strong></td>
<td><strong>Pushing me, they can be my competitors as well as your teammates in the pairs</strong></td>
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<tr>
<td></td>
<td><strong>They motivate/influence me</strong></td>
<td><strong>It’s team members push me</strong></td>
<td>It’s team members push me</td>
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<tr>
<td></td>
<td></td>
<td><strong>They make want to pull for them, push harder, they are competitive like when we’re in pairs... I Love the competition aspect, I want to be better than them</strong></td>
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<td></td>
<td></td>
<td><strong>Push me harder... make me worker harder</strong></td>
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<td><strong>Other people definitely motivate me</strong></td>
<td>Other people definitely motivate me</td>
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<td><strong>It’s crappy conditions out, I don’t feel like going out, but the reason why I do it because my teammates are doing it</strong></td>
<td>It’s crappy conditions out, I don’t feel like going out, but the reason why I do it because my teammates are doing it</td>
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<td><strong>Like role models in certain aspects and I guess like motivational because I think they are really amazing in their own ways</strong></td>
<td>Like role models in certain aspects and I guess like motivational because I think they are really amazing in their own ways</td>
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<td><strong>My crew members influence me by they inspire me, they motive me, they make me want to be better</strong></td>
<td>My crew members influence me by they inspire me, they motive me, they make me want to be better</td>
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<td></td>
<td></td>
<td><strong>My team members influence me definitely by their attitude</strong></td>
<td>My team members influence me definitely by their attitude</td>
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<td></td>
<td><strong>Comfort and Support</strong></td>
<td>Other people are going through the same thing as you are so... comforting in a way</td>
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<td><strong>Like eight other people who are going through the same feelings, or same emotions, same doubt as you and it’s easier to talk about and it’s easier to,... it just makes the whole experience better I found it.</strong></td>
<td>Like eight other people who are going through the same feelings, or same emotions, same doubt as you and it’s easier to talk about and it’s easier to,... it just makes the whole experience better I found it</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Not Letting Teammates Down</strong></td>
<td>I don’t want to be in a race thinking you know the seven other people are kinds of pulling my ass down the coarse</td>
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<tr>
<td></td>
<td></td>
<td><strong>Don’t want to let your teammates down</strong></td>
<td>One of the things that pushes you is that you never want to let your teammates down right, you develop such a big trust among yourselves</td>
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</tbody>
</table>

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<thead>
<tr>
<th><strong>Males</strong></th>
<th><strong>They push me</strong></th>
<th><strong>I keep pulling because of them</strong></th>
<th>I keep pulling because of them</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Support</td>
<td><strong>They motivate me</strong></td>
<td><strong>You can build off each other and fee off each other and takes us to newer highs</strong></td>
<td>You can build off each other and fee off each other and takes us to newer highs</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Sometimes we all understand people have bad days, and you are going to be a little slower and when it happens you know guys will be yelling at you during practice ‘come, get up here’ and it is not that you’re slacking off,... the team wants to see you succeed</strong></td>
<td>Sometimes we all understand people have bad days, and you are going to be a little slower and when it happens you know guys will be yelling at you during practice ‘come, get up here’ and it is not that you’re slacking off,... the team wants to see you succeed</td>
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<td></td>
<td></td>
<td><strong>Motivating factor at times</strong></td>
<td>Motivating factor at times</td>
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<td></td>
<td><strong>If you are on a down day there is someone else there that’s bound to be having a good day that’s going to lift you up and it’s you can feed off the positive energy from the people around you</strong></td>
<td>If you are on a down day there is someone else there that’s bound to be having a good day that’s going to lift you up and it’s you can feed off the positive energy from the people around you</td>
</tr>
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<td></td>
<td></td>
<td><strong>The teammates provide a lot of support</strong></td>
<td>The teammates provide a lot of support</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>I enjoy playing on a team it is nice to share your successes with people who have been through the same experiences.</strong></td>
<td>I enjoy playing on a team it is nice to share your successes with people who have been through the same experiences.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Not Letting Teammates Down</strong></td>
<td>I don’t want to let them down</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Don’t want to let your teammates down</strong></td>
<td>I don’t want to let them down</td>
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<td></td>
<td></td>
<td><strong>Affiliation</strong></td>
<td>Friendships</td>
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<td></td>
<td></td>
<td><strong>I definitely enjoy the social aspect you become really good friend with everybody especially with this group we’ve become really good friends</strong></td>
<td>I definitely enjoy the social aspect you become really good friend with everybody especially with this group we’ve become really good friends</td>
</tr>
</tbody>
</table>

**Figure 7.** The rowers’ responses based on how important it was for them to be part of a team.
Other less frequent responses from the females, included the sense of comfort and the support the teammates bring. As well mentioned, was the “fear of failure” factor, as some of the female rowers worked hard for they did not want to let their teammates down. This was explained by one female rower who said:

One of the things that pushes you is that you never want to let your teammates down right, we develop such a big trust among ourselves. It’s like during the race it is almost like it not like taking the stroke for ‘oh, I want to win’, it is like ‘oh, I don’t want to let everyone down’.

The male responses to the Importance of Teammates were very similar to the female responses. The themes of been pushed harder as athletes, being motivated by their teammates, the fear of letting their teammates down, and the sense of comfort and support were present. One male rower explained how having teammates impacted him because they make:

It a lot easier to be successful, because if you are having a down day there is someone else there that is bound to be having a good day that’s going to lift you up and you can feed off the positive energy from the people around you.

In a race situation, another male rower stated that “you get down to the point in the race where everyone thinks maybe silver is not that bad, I keep pulling because of them and because I don’t want to let them down.”

One social oriented theme that was present amongst the male responses only was the social aspect and the friendships. A male rower added that having teammates were “a lot more fun too, I definitely enjoy the social aspect, you become really good friends with everyone especially with this group we’ve become really good friends.”
Being a Single Sculler

In terms of being motivated to be a single sculler, seven of the female rowers stated that they could be motivated. Three of those females clearly stated that it was “not what they choose to do”, as one female explained: “I don’t know if I be wanting to spend that much time out there, just myself, I just I love being around people too much.” The other four females stated “as long as they had a team training environment”. One of those females wanted “an environment where you have other people to train with similarly in singles then you still get a sense of a team even though you are by yourself.”

As for the males, only one stated that he could be motivated to row the single, but stated that he would “still want that team atmosphere….there is so much more benefit to training and competing in our training environment than it is to do it on your own, there’s no comparison.”

Implementation of Different Types of Motivation

This final category investigated the different types of motivation the rowers implement during practice and competitive situations. In total, there were four different types of situations including Pack rows, “On your Own” rows, Time trials, and within the Middle of a Race. Each rower was asked their thoughts were or what motivated them during the different situation.

Pack Rows

A Pack row is a practice situation, in which two or more small boats, were involved. The boats start each workout piece at the same time, as the boats line up beside
each other. They are usually in an organized format and are dictated by the coach or coxswain. The female responses were ego, task and social involved themed (see Figure 8.), the male responses showed little variation. Their responses were characterized as being almost entirely ego-oriented motivated.

_Ego orientation._

The dominant female response to what motivated them during a Pack row was the ego-involved theme “To be out in front of the other boats”. However, an important observation was the combination of extrinsic and intrinsic motive to the theme of being out in front. For example, one female athlete explained a Pack row as:

A balance between a lot of aggression to be ahead and an internal focus on your own boat and making that work well almost to the point of ignoring what everyone else is doing and just focus within, and then looking and seeing where you are relative to the group, and then using that internal focus to really try to externally move yourself out ahead, or taking the internal cues and because you can internally feel when the boat is moving better and you get the external reward because you can feel yourself moving within that pack.

The male rowers were also motivated during the Pack row “To be out front” and win the piece. They used the other boats as a source of drive, as well as, a measurement to see how they are doing. As a male rower stated that “we absolutely use them (other boats), you could never be as intense rowing by yourself.” Another male rower described the intense environment Pack rows provide. He explained:

It is such a great group because we can fight like crazy both in the confrontational sense... get to the finish line first on the water, but the relationship is such that everyone understands what is going on out there that we are all just trying to be the best and when we get to the dock the relationship is as good as you could possible accept from an atmosphere that intense.
<table>
<thead>
<tr>
<th>Motivational Themes</th>
<th>2nd Order Themes</th>
<th>1st Order Themes</th>
<th>Raw Data Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ego Orientation</strong></td>
<td>Winning/Social Comparison</td>
<td>Placing/To be out front of the other boats</td>
<td>What motivates me is to just get ahead. I use the other boats beside me to make them push you harder to get more out of yourself. It's also can be very motivating say if I'm in front of the pack or near the top people in the pack. A lot of aggression to be ahead, the external reward. I am motivated by the fact that I want to be out front. Try to maximize your run in order to get out ahead</td>
</tr>
<tr>
<td><strong>Task Orientation</strong></td>
<td>Boat Speed</td>
<td>Producing maximum Boat Speed</td>
<td>An internal focus of your own boat and making that work. Motivated by moving my boat to the best of my abilities. Trying to row technically, efficient as possible while pulling as hard as possible. Pack rows motivated by boat speed. To show myself more than them. Not that it is all about winning but it's more about just seeing how you can push yourself.</td>
</tr>
<tr>
<td><strong>Social Orientation</strong></td>
<td>Social Approval</td>
<td>Demonstrating Competence to Teammates</td>
<td>Show my teammates I'm pulling really hard.</td>
</tr>
<tr>
<td><strong>Males</strong></td>
<td>Winning/Social Comparison</td>
<td>Placing/To be out front of the other boats</td>
<td>It is all about who wins the piece. A competitive piece that you measure yourself off the other boats. I feel obviously the point is to go the fastest in the pack row because then it shows you put together whatever you are working on and you are doing better than everyone else. I want to win every piece. I use the other boats, ya you use the other boats as a motivation and not just as a motivation but as a measurement. To get to the line first.</td>
</tr>
<tr>
<td><strong>Social Orientation</strong></td>
<td>Social Approval</td>
<td>Demonstrating Competence to Teammates</td>
<td>I want to prove to the guys in the boat that I am good. You are going to try to push your dominance as much as possible.</td>
</tr>
</tbody>
</table>

**Figure 8.** The motivation implemented by the female and male rowers during their Pack rows.

**Task orientation.**

Task-involved themes were absent from the males’ responses. The female rowers responses included Producing maximum boat speed and Personal achievement.

**Social orientation.**

There was only one social involved theme, Social approval, mentioned from both genders. Each gender want to demonstrate their dominance or ability to their fellow teammates.
"On your Own" rows

An "On your Own" row was a practice situation which involved the boats training on the lake by themselves and were usually unstructured for the most part, though it may have contained some technical requirements. Ego and task-involved themes were present in both the female and male responses (see Figure 9.).

<table>
<thead>
<tr>
<th>Motivational Themes</th>
<th>2nd Order Themes</th>
<th>1st Order Themes</th>
<th>Raw Data Themes</th>
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</thead>
<tbody>
<tr>
<td><strong>Females</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ego Orientation</td>
<td>Identified</td>
<td>Getting them</td>
<td>How fast you can get the kilometres done while working hard while staying on task</td>
</tr>
<tr>
<td></td>
<td>Regulation</td>
<td>Done</td>
<td>To play this little game - I guess I really need something to go against</td>
</tr>
<tr>
<td></td>
<td></td>
<td>External games</td>
<td>Motivated to improve on certain things</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Focus on your own boat</td>
</tr>
<tr>
<td></td>
<td>Task</td>
<td>Technique</td>
<td>Focus on technique</td>
</tr>
<tr>
<td></td>
<td>Orientation</td>
<td></td>
<td>Work on your own is more about technique and trying to master an aspect of your stroke</td>
</tr>
<tr>
<td></td>
<td>Improving</td>
<td>Technique</td>
<td>Working me on my weakness because I have no one to expose me to my weakness</td>
</tr>
<tr>
<td></td>
<td>Technique</td>
<td></td>
<td>Motivated by I think I would have more of technical focus</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Enjoyment</td>
<td>Whatever technical point I'm trying to work on. Bringing it back within your boat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Enjoyment</td>
<td>What I should be working on</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Just more enjoyment in just rowing for the sake of rowing</td>
</tr>
<tr>
<td><strong>Males</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ego Orientation</td>
<td>Identified</td>
<td>Getting them</td>
<td>Not motivated – hate them</td>
</tr>
<tr>
<td></td>
<td>Regulation</td>
<td>done</td>
<td>Sometime to just get done so we can go home for lunch</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hate them – can’t stand them. Find them mind numbing</td>
</tr>
<tr>
<td>Task Orientation</td>
<td>Improving</td>
<td>Technique</td>
<td>What motivates me is to get better so we can win in the pack row</td>
</tr>
<tr>
<td></td>
<td>Technique</td>
<td>Improvement</td>
<td>Just the one thing that you work on that you try to improve it by the end of the row</td>
</tr>
<tr>
<td></td>
<td>Positive</td>
<td>For Quietness/</td>
<td>It is very very internal and you feel like your heart you’re not even doing the work like everything is almost automatic when it’s going well in on your own row</td>
</tr>
<tr>
<td></td>
<td>Emotions</td>
<td>Motion</td>
<td>Mental recovery because you are away from it can be like a circus</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Motivated by just that true sensation of just rowing</td>
</tr>
</tbody>
</table>

**Figure 9.** The female and male rowers’ responses to "On your Own" row.

**Task orientation.**

For both genders "On your Own" rows responses were heavily influenced by task-involved themes. The female task-involved themes were dominated by Improving technique, while the male task-involved themes were split between Improving technique and the Positive emotions.
**Ego orientation.**

There was one ego-involved theme present in both of the genders’ responses. This was the extrinsic motivation form of identified regulation. Some of the male rowers, had an intense dislike of this type of workout, as they saw no purpose in their training for the Olympic Gold. This dislike was not found for the female rowers, though Identified regulation was present.

**Time Trials**

A Time trials was a practice situation, where each boat was timed over a designated distance. Each boat was sent off the line in usually 10 to 30 second gaps from each other. Ultimately, this was a race as the times of each boat were compared at the end, although, a crew may race down the course without seeing another boat. Ego and task-involved themes were present for both genders (see Figure 10.), but there was only one male ego-involved response.

**Ego orientation.**

The female rowers were mostly motivated by Winning or the Social comparison that occurred. But often in a Time trial situation there would be no boats beside them, so some of the females explained how they would visualize a boat there. There was only one male response that was ego-involved themed, which was Social comparison in terms of the other boats.
<table>
<thead>
<tr>
<th>Motivational Themes</th>
<th>2nd Order Themes</th>
<th>1st Order Themes</th>
<th>Raw Data Themes</th>
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</thead>
<tbody>
<tr>
<td><strong>Females</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ego Orientation</strong></td>
<td>Winning/Social Comparison</td>
<td>Use of Other Boats</td>
<td>You can use external like other boats to motivate me if they are catching up or we’re moving away from them</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>I see the boats more than visualize</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Envision boats beside you and what it would take to move pass them (external)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>I dream up the scenarios where like someone is pushing me and I try to simulate how hard I had to go</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>External motivations (ie hearing the voices in the wind)</td>
</tr>
<tr>
<td><strong>Task Orientation</strong></td>
<td>Personal Achievement</td>
<td>To achieve Long term goal</td>
<td>I tend to think longer term for motivation when I am doing time trials (ie goal for this year)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Long term stuff. I look at the goal and what’s my goal</td>
</tr>
<tr>
<td></td>
<td>Improving Technique</td>
<td>Improving Technique</td>
<td>Technical stuff</td>
</tr>
<tr>
<td></td>
<td>Effort</td>
<td>More Effort</td>
<td>Harder</td>
</tr>
<tr>
<td></td>
<td>Good Time</td>
<td>To beat the Clock</td>
<td>See how fast I can go, against the clock and other people</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Race against the clock</td>
</tr>
<tr>
<td></td>
<td>Task Completion</td>
<td>Task Completion by using internal focuses</td>
<td>One of those novice rowers who does tens for people and things</td>
</tr>
<tr>
<td><strong>Males</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ego Orientation</strong></td>
<td>Social Comparison</td>
<td>Use of Other Boats</td>
<td>You think about the other boats</td>
</tr>
<tr>
<td></td>
<td>Effort</td>
<td>More Effort</td>
<td>Keep pushing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>You have to go</td>
</tr>
<tr>
<td><strong>Task Orientation</strong></td>
<td>Personal Best</td>
<td>Personal Best</td>
<td>Personal kinds of best</td>
</tr>
<tr>
<td></td>
<td>Task Completion</td>
<td>Task Completion by using internal focuses</td>
<td>Set out race plan</td>
</tr>
</tbody>
</table>

*Figure 10.* The motivation themes of the rowers during a *Time trial.*

**Task orientation.**

With the task-involved themes, the females were motivated by improving their technique, putting forth continuous effort, producing good times and using internal focus to complete the task. As well, two female rowers talked about how they focussed internally and were motivated by their long term goals (i.e., Olympic gold). The male rowers, on the other hand, focussed more internally in their boat. As a male athlete explained:

I find that Time trials are probably the hardest for me to do because you have to dig down deeper in Time trials than the boats beside you. Sometimes when a boat is beside, you get up, you can just sit on them but on a Time trial you really have
to dig deep and keep pushing because you don’t know how fast everybody else is going, so it is probably one of the hardest things to do.

**Middle of a Race**

*Middle of a Race* was a competition situation which involved the rowers expressing what goes through their minds in a middle of a race. Both genders had a variety of responses that were task and social involved themed and ‘Sense of Self’ themed (see Figure 11.). The females had a greater variety of responses than the males. As well, ego-involving themes were only present amongst the female responses.

**Ego orientation.**

Social comparison dominated the ego-involved themed response from the female rowers. As for the male athletes, there were no ego-involved themed responses.

**Task orientation.**

For the females, Effort was their main task-involved theme. The most common male response was the Task completion theme, where the race was broken up into little internal tasks. As one male rower explained:

> I think the fastest way to race is staying with your boat, sticking to your plan, pushing you want to push and not having to respond, if you have to race the other’s team race you are going to end up being scrambled not do what you want to do, so it is nice knowing that you are moving through a boat and it reinforces to stay within your own boat.

**Social orientation.**

Social involved themes were present for both genders, though there was only one male social involved response. This was in the form of contributing to the team, as he
wanted to make the boat feel lighter for his teammates. The female responses varied between Support, Social approval and not letting the teammates down.

<table>
<thead>
<tr>
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<th>1st Order Themes</th>
<th>Raw Data Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ego Orientation</strong></td>
<td>External</td>
<td>External factors</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Winning/Social Comparison</td>
<td></td>
<td>Other boats</td>
</tr>
<tr>
<td></td>
<td>Other Boats</td>
<td></td>
<td>Thinking I can break the other people or the people I am racing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Use of other boats</td>
</tr>
<tr>
<td></td>
<td>Beating other people</td>
<td></td>
<td>Sometimes use the other boats</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>I feel that is almost more interal though because it is all about how I am going to, I know I am thinking about other people, but it is more what I am going to do in order to beat them.</td>
</tr>
<tr>
<td><strong>Task Orientation</strong></td>
<td>Self Talk</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Technique</td>
<td>Mostly technical things</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Task Completion</td>
<td>Technical checks like am I long enough</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Break them down into smaller numbers and just take them like one time at a time</td>
</tr>
<tr>
<td><strong>Ego and Task Orientation</strong></td>
<td>Ego and Task Support</td>
<td>Use a lot of external and a lot of internal, I don’t favour one over the other. I think it’s probably even</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Internal and External</td>
<td>Support</td>
<td>Motivated by my supporters</td>
</tr>
<tr>
<td></td>
<td>Social Approval</td>
<td>Demonstrate Competence</td>
<td>Must go for my teammates. I have to prove it to them .</td>
</tr>
<tr>
<td></td>
<td>Not letting down my Teammates</td>
<td>Supporting Teammates</td>
<td>If I am supporting what my teammates are doing, n are my actions supporting the team</td>
</tr>
<tr>
<td><strong>“Sense of Self”</strong></td>
<td>Lack of Confidence</td>
<td>Doubt or Negative Self Talk</td>
<td>Doubts – of course you are going to think oh I can’t do it one more stroke</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“I don’t think I can go on”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>A lot of doubt come into my mind – doubt happens if I am winning or losing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Males</th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Task Orientation</strong></td>
<td>Task Completion</td>
<td>Inside Boat Focuses</td>
<td>Focus inside the boat</td>
</tr>
<tr>
<td></td>
<td>Maintaining Technique</td>
<td>Technique</td>
<td>What is [the cox] saying</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>I have to race in segments – next call</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Next call</td>
</tr>
<tr>
<td><strong>Social Orientation</strong></td>
<td>Teamwork</td>
<td>Team contribution</td>
<td>Making the boat lighter for somebody else</td>
</tr>
<tr>
<td><strong>“Sense of Self”</strong></td>
<td>Lack of Confidence</td>
<td>Negative Self talk</td>
<td>Negative thoughts – this hurts</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>God this hurts</td>
</tr>
</tbody>
</table>

*Figure 11.* The motivational themes from the female and male rowers during a race.
"Sense of Self".

The second most popular answer for what went through the females’ mind during a race was Doubt. The females doubted whether they could physically finish the race by pushing through the pain barrier. Amongst the male rowers, their “Sense of Self” responses also came from the pain they felt during the race.
Discussion

Within this section, the findings in relation to the two purposes of this study are discussed. First, the motivational differences and similarities between the genders of elite level rowers are explored. Second, the multidimensional motivation of both genders among the different situations is compared. Third, relationships to Achievement Goal Theory from the findings of this study are discussed. Finally, implications for athletes, coaches and sport organizations are noted.

Motivation between Genders

Often research involving gender comparison concentrates on the differences between males and females and overlooks their similarities. Within this study, there were more motivational similarities than differences between the genders of the elite level rowers. Vealy (1988) hypothesized that gender differences were reduced as athletes moved closer to an elite level, explaining that females were less influenced by traditional gender roles. On the other hand, it may be that there are the motivational characteristics needed to be a successful elite athlete, regardless of gender and the elite performing environment attracts individuals with these types of characteristics.

The Meaning of Success and Failure

In terms of success and failure, their meanings are significant to an individual, and thus what success is to one person is different to another (Roberts, 2001). When the rowers were asked to describe what made them feel successful, there was the presence of ego, task and to a lesser extent social oriented themes for both genders. The dominant response was performance results. However, typically the rowers followed their initial
responses by stating that it was the “process part” that was more important than the “end product”, or the result. They explained it was the surviving of each day’s training session and the large amounts of effort that was applied that was more important than the end product of the gold medal. In this way the response was modified from an ego-oriented to a task-oriented view; which can be explained by two reasons. First, there are few opportunities to race the best teams internationally per year, so the rowers have learned to internalize their successes. This was similar to Schilling and Hayashi’s (2001) descriptions of basketball and cross country teams. In basketball, there is a definite winner and loser but in cross country there could be over 200 competitors. Therefore, the potential of losing is far greater than the potential of winning. They found that the cross country runners had to adjust their views of success to a placing or a time, in order for the runners to view the experience as pleasant and successful. Second, many of the rowers stated that it was not possible to control their competitors’ performance. They believed that they could have the best race of their lives, but still come up short of a medal. Therefore, they would not always equate success with winning or an ego-oriented reward. Instead, they would assess success on standards that were personally controllable (Vealey, 1988).

When discussing what made the rowers feel successful, there was one noteworthy difference between the genders. The majority of the female rowers noted making a technical improvement as a success; where as the male rowers did not even mention technique. The males focussed more on personal accomplishments for their task-oriented
theme. This difference could be a reflection of how the males valued technique, or representative of what their respective coaches emphasized.

Shifting from what made the rowers feel successful to less successful, there were more apparent differences between genders. Further, the responses were not the exact opposites of what made the rowers feel successful. In fact, the males did not mention losing, a lack of results, or any ego-oriented themes. This could be attributed to the fact that the males had not lost an international race in the previous two years. A similarity between genders was when they failed to meet expectations generally, but more importantly their personal expectations. Another similar response between genders was the fact of being injured. When a rower was injured, they felt as if something was out of their control, and thus brought about feelings of failure. There were also mental characteristics including a lack of confidence or the presence of self-doubt, which made the rowers feel less successful.

Mental characteristics dominated the rowers’ responses when asked what it took to be successful. The rowers mentioned that it took a lot of self-motivation and self-reliance for an athlete to be successful. As well, a strong work-ethic was essential. In the study by Mallett & Hanrahan (2004), the athletes believed they had to have the physical talent to succeed. However, only one female rower mentioned the notion of good genetics or ability, as a necessity to become successful. In fact, the males stressed that they honestly believed they could do anything as long as they had a clear plan on how to achieve their goal and put the work into it. They stated that on the start line, it came
down to their mental capabilities to get them over the finish line first. One notable
difference between the genders was that the females had a stronger belief that team
cohesion, consisting of team harmony and trust in each other, was necessary for them to
succeed.

**The Motivation to Race**

When asked why the rowers raced, ego and task-oriented themes appeared in their
responses. Social oriented themes were notably absent. The male rowers stated they
raced to win. The females rowers did not mention they raced to win, but one female
phrased it as the opportunity to try to win. This could be influenced again by the fact that
the males had been successful for two years on the international racing scene, where the
females had inconsistencies in their results. Instead of winning, the females talked more
about quantifying their training or getting a measure of their training. The race was the
exam of all of their training, and the result of the race as their grade. The female rowers
also talked more about how the race was an opportunity to test their limits and to see their
potential.

When discussing the importance of winning, the female rowers stated that their
goal was to win and that is what they trained for; however, it was not the only thing.
Again, it came back to a control aspect, where they could not control their competitors
but rather their performance was within their control. The other reoccurring theme was
the process or the journey versus the end product that was more important than winning.
In contrast, the male rowers directly stated that winning was very important, as that was
what they set out to do. It is possible that some differences in their responses could be contributed to the influence of the coaches and the foundation of their team goals.

From the importance of winning to the importance of mastering the skill of rowing, the responses became less compelling. Although every rower expressed that mastery of the skill was somewhat important, they also stated that one could never fully master the rowing stroke. However, what was more important to the rowers was the belief that they were continuously attempting towards achieving mastery. As well, both genders acknowledged to achieve their goal of winning, good technique was required and thus illustrating the importance of attempting to master the skill. Rowing is a sport that in order to win, technique is essential even from the very basics of keeping the boat afloat. Therefore, they considered that their task-oriented goal to improve, was required to fulfill their ego-oriented goal, to win.

**Multidimensional Motivation between Different Situations**

The investigation into four situational environments, involving practice and competition settings, illustrated the use of task, ego and social goal involvements amongst the rowers. As well, it demonstrated the dynamic process of motivation. This supports the previous research that stated elite athletes were both task and ego orientation (Mallett & Hanrahan, 2004; Pensgaard & Roberts, 2003; Roberts & Ommundsen, 1996). Hardy, Jones and Gould (1996) predicted that an elite athlete’s ego orientation, such as a long-term goal of winning the World Championships, would maintain the athlete’s motivation during long training sessions. Within the competitive situation, it was an athlete’s task orientation to perform that would drive them. However, Roberts (2001)
suggested the contrary, and it was the athlete’s ego orientation that sustained them through the competitive situation, and it was their task orientation that nourished the athlete through the practice situation. Roberts (2001) also stated that an experienced athlete has the ability to switch their goal orientation to what was appropriate according to the situation.

Within the Pack row practice situation, the males lacked any task involved themes. In this practice situation, the males were there to win every piece. The female rowers expressed ego, task and social involvements. Roberts (2001) stated that it was impossible for an individual to maintain a task and ego state of involvement at the same time. However, the accounts from the female rowers contradict that statement, as they described the Pack rows as a combo of ego and task involvement. More specifically, they were focussed on what happening inside their boat to technically increase one’s boat speed, in order of being out front of the other boats. As one female rower explained a Pack row as:

A balance between a lot of aggression to be ahead and an internal focus of your own boat and making that work well, almost to the point of ignoring what everyone else is doing and just focus within (their boat) and then looking and seeing where you are relative to the group and then using that internal focus to really try to externally move yourself out ahead…. because you can internally feel when the boat is moving better and you get the external reward because you can feel yourself moving within that pack.

Both genders discussed the advantage of having the immediate positive feedback, as discussed in the previous quote, within a Pack row. Their placing in the pack determined if they were moving the boat or not. Thus if they changed something technically and a boat length of lead was achieved, then they knew things were going well. On the other
hand, if they suddenly lost a boat length lead, then that was an indicator that something needed to be changed.

It was that lack of immediate feedback that made the "On your Own" rows a negative experience for the males. They talked more about getting "them" (the rows) done, nor did they see a purpose for them. For the females, they believed the purpose of these rows was to improve technique. Thus, the females were motivated by the task-oriented motive to improve.

Within the Time trial situation, even though at times no other boats were visible, the rowers would visualize another boat beside them. Thus, they choose to be in an immediate ego-involved environment. This was an interesting observation adding to the debate whether a coach should foster an ego-involved environment, even at an elite level (e.g., Roberts, 2001; Treasure, Duda, Hall, Roberts, Ames & Maehr, 2001; Harwood, Hardy, Swain, 2000; Roberts, 2001). The elite rowers themselves not only chose to be in an ego-involved environment, but enjoyed such an environment. Also in the Time trial, some of the female rowers mentioned the use of long-term goals within these situations as inspiration to push harder. As well, both genders mentioned that they did not enjoy the aspect of the unknown factor in this situation, as they never knew if they were in first or last place. Again, it was that lack of immediate feedback that was missing in which the rowers did not like.
Within a race situation, the female rowers expressed task, ego, and social involved themes. But more surprisingly there was a lack of ego involvement responses from the males. This was the opposite of the ego-involved Pack rows, in which the males described them as the best training for race situations both physically and mentally. It was like the males implemented a task-involved behaviour to achieve an ego-oriented outcome.

This task involvement emphasis in a race situation would be beneficial to the athlete in order to perform well, as the media and spectators put too much focus on the winning and beating others aspect (Pensgaard, 1999). It could also be that within a race situation there was so much stimulation around them, that it was more effective for an athlete to focus on themselves. For example, if a rower was to look outside of their boat and noticed that one of their competitors had a lead on them, they may be consumed with negative thoughts or too many thoughts. This may cause the rower to lose their focus, resulting in a reduced performance.

In addition, rowers at this level have a race plan set up in advance for them to execute, as they discussed in the interviews. The race plan would be based on internal cues and technical calls, since the team could not predict in advance the movement of their competitors. This race plan would be practiced, both physically and mentally, so on race day they knew exactly what was to be executed. It is assumed that within the second half of their race, this race plan would become essential as their minds and bodies would be exhausted and not comprehending. When discussing the importance of a race plan,
the males were very clear and vocal about the need of it. They discussed how it was vital for all eight rowers to know exactly what they were doing each stroke of the race and how they were going to execute it for them to succeed. They talked about emphasizing technical calls during a race. The female rowers, on the other hand, discussed the need to have a more open race plan, where there was flexibility to react to race circumstances.

The most noticeable difference between the genders in this section was the lack of task involvement in the Pack rows and the lack of ego involvement in the race situation for the males. But in general, the trend seemed to indicate that both genders have the ability to switch between task, ego and social involvement as predicted by Roberts (2001); and in fact use all three as motivation involvements during the different situations. However, the males seemed to have the trend of ego involvement during the practice situations and task involvement during the race situations as predicted by Hardy, Jones & Gould (1996). The females, on the other hand, seemed to use a variation of task, ego and social involvements in all four situations. Researchers (Roberts, 2001; Duda & Whitehead, 1998) stated that it was not possible to be task and ego-involved at the same time. However, this can be challenged by the statements brought forth by these rowers. These statements illustrated that it was not only is it possible to be both task and ego-involved, as well as socially involved, at the same time, it tended to be the norm.

**Advances to the Achievement Goal Theory**

The Achievement Goal Theory has been generalized into two types of goal orientations, task and ego. With time, researchers (Allen, 2003; Schilling, Hayashi, 2001; Harwood, Hardy & Swain, 2000) have argued that the theory should welcome new
constructs, so the motivation of an athlete could be completely and accurately understood. Often previous research has mislabelled the data when using only the task and ego classification, which resulted in the data being misinterpreted. To help overcome this new constructs include social orientation and self-referenced ego involvement.

**Social Orientation**

The rowers’ statements from this study supports the previous research (Schilling & Hayashi, 2001; Allen, 2003; Bakker, De Koning, Schenau & De Groot, 1993) that has revealed the presence of social orientation within the sport domain. Bakker et al. (1993) noted that elite athletes in their study were not only motivated by the achievement but also the social aspects. Therefore, even at an elite level, social orientation was an important factor in the rowers’ motivation.

The theme of social orientation appeared throughout the rowers’ interviews and was emphasized by the question referring to the importance of their teammates. Social orientation appeared in the form of social support and comfort that a team provides for each other. They considered that the sense of comfort come from when the teams sits on the start line together in the final moments before the race, or that support when they had a bad training session. The rowers spent many hours together and shared many experiences, including some unique experiences like winning the World Championships. With that grew a sense of trust and commitment to each other. The rowers desperately did not want to let their fellow teammates down. As well, within this team environment, rowers described how they were pushed harder as athletes by their fellow teammates. For example, as one male stated “you get to the point in the race where everyone thinks
maybe silver is not that bad. I keep pulling because of them (teammates) and because I don’t want to let them down.” As well, the rowers pushed harder due to social comparison that occurred during the training sessions.

A characteristic of the Canadian national team rowing scene was that for more than two-thirds of the year the rowers were literally competitors, as they raced each other vying for spot on the team. Then after the selection process they were grouped into a team. But even after the selection process, they still trained in small boats, competing day in and day out against each other. It was this environment that the rowers talked about, in which pushed them harder as individuals, as once there was a boat beside them, there was no chances of reducing effort. Each pair wanted to show their dominance and to demonstrate their competence for their spot on the team. The social support also became valuable during this time as if a rower was having a bad day, the other rowers were there to help them get through it. Some rowers talked about wanting to do their best or not quitting in the middle of a piece as they pushed through the pain, so they would not let their teammates down or fail them. The rowers appreciated this team environment and chose to be in it.

When asked if the rowers would be as motivated to be a single sculler, it was the males that mostly said no, where the females said, yes, but they chose not to be or only if there were a team training environment where they were competing with other boats. Both Schilling and Hayashi (2001) and Cox (2002) indicated that social orientated themes were more prevalent in team sports; however, further research is needed to
investigate the impact and the dynamics of a team environment on an individual athlete. These responses indicated that the males valued the social orientation just as much as the females.

Thus, there were no considerable differences between genders within the social orientation. Unlike the previous research (Ryan, Hicks, Midgley, 1997), the male rowers seemed to value the friendships amongst the team just as much as the female rowers. Both genders talked highly of their teammates, from the impact they have on them to the amount of fun they have together. In fact, social status, instead of affiliation, was mentioned only twice throughout all the interviews, though both were from males. This could be explained by the fact that there is no money or fame, or very little, to be gained in the sport of rowing.

**Self-Referenced Ego Involvement**

If the data was to be examined from a self-referenced ego involvement, the conclusions would support Harwood, Hardy & Swain (2000). Harwood et al. (2000) argued that construct of ego involvement should be split into norm-referenced ego involvement and self-referenced ego involvement. Norm-referenced ego involvement maintains the traditional definition of ego involvement, where it involves the comparison of others. However, self-referenced ego involvement involves the comparison to oneself. They argued that certain statements that previous researchers have labelled as task involvement would be better represented being marked as self-referenced ego involvement. Though within this study, they were not labelled as self-referenced ego involvement, many of the task involvement would have been better represented as self-
referenced ego involvement as they were very much in the competitive setting. For example, the responses of pulling a Personal Best (a PB) on an ergometer test. Within the national team scene, ergometer tests were conducted to see the standings and the physical improvements of the rowers, and thus becomes a very competitive environment. Though times are compared to other times, the rowers themselves set the goal of achieving or being close to a PB. They perceive their previous time just the same as they would a competitor’s time, and have that competitiveness to beat it.

However, Treasure, Duda, Hall, Roberts, Ames & Maehr (2001) argued that self-referenced ego involvement could not exist, because the true definition of competition, according to Martens (1975b), states there needs to be the presence of others, though others (Sherif, 1976) disagreed. When the rowers were asked who they believed their most difficult competitor was, half the females and several of the males responded by stating that they were it. This adds to this debate and questions whether it is the definition of competition that needs to reviewed, rather than the elimination of the self-referenced ego involvement construct.

**Potential for a New Component of Task Involvement**

Similar to the debate of the dividing ego involvement, one could argue for the division of task involvement. When asked why the rowers found the sport worthwhile, the most dominant answer for both genders was because they were learning life lessons and skills. As well, the rowers felt like they were growing not only as better athletes, but as better individuals. Sport was teaching the rowers skills that were not necessarily limited to rowing, but pertinent to other aspects of their lives. These skills included
working within a team, time management and self-confidence. In fact, this theme of self-enhancement was present throughout the rowers’ interviews. Within the definition of task involvement, it includes learning and improvement of a task, but potentially personal attributes? Thus, task involvement could be divided into task involvement and self-enhancement task involvement. Task involvement would include the learning, improving and mastery of the skill, as represented by the skill of rowing. Self-enhancement task involvement would encompass the journey towards self-actualization, the life lessons and the self development that are involved with such an experience. The defining line between the two task involvements would be the skills implemented only during the time in which the individual participates, and the skills that can be implemented over a lifetime. Thus in this case, task involvement would include the attempting to mastery the skill of rowing, which is pertinent during the rower’s athletic career. Self-enhancement task involvement would include the skills such as teamwork and self-confidence building that the rowers would implement during and after their athletic career.

Implications for Athletes, Coaches and Sport Organizations

This study has several implications for athletes, coaches and sport organizations to improve an athlete’s performance. The first suggestion is to create environments that are balanced between task, ego and social involvement. Some achievement motivation researchers suggest that coaches and sporting organization should foster only a task orientation. Others suggest that this would not be valuable to elite athletes, who would benefit from the inclusion of ego orientation (Harwood, Hardy & Swain, 2000). Within this study, rowers valued and enjoyed task and ego orientation environments. At times, the rowers themselves changed a task-involved situation into an ego-involved
environment. Coaches and sport organizations should provide opportunities to foster social connections and belonging amongst members of the team, even at an elite level. This could include incorporating team goals into the training program, and define how each individual athlete can contribute to that team achievement. In that athletes could feel as if they have a direct impact and contributing to a greater good.

The second implication is that an athlete should learn how to use each orientation for different motivational purposes to achieve the most advantage. For example, in this study, the male rowers implemented a task-involved theme during race situations to optimize their performance. Another example was when an athlete is injured. During this time, they would not be able to train and would result in a feeling of low perceived competence. In a situation like this, athletes, coaches and medical staff should emphasize task orientation to foster a healthy healing process.

**Conclusion**

The first purpose of this study was to identify and understand motivational differences and similarities between the genders of elite Canadian rowers, using the framework of the Achievement Goal Theory. There were actually more similarities than differences between the genders. These similarities should be considered as important as the differences. Both genders had the goal to win, but to the female rowers winning was not as important as for the males. The females emphasized trying their best, as they only had control over their performance and not their competitors. Further, both genders expressed the importance of the process rather than the end product. Finally, both
genders agreed that their teammates were very important to them and greatly influenced their behaviours and performances.

The second purpose was to further explore these motivational differences and similarities between the rowers in practice and competitive situations. The male rowers seemed to have the trend of being ego-involved during practice situations and task-involved during race situations. The female rowers used a variation of task, ego and social involvements in all four situational environments. Overall, the rowers’ responses illustrated that it was not only possible to be task, ego and socially involved at the same time, it tended to be the norm.

The significance of this study was that it involved some of the most elite athletes in the world and was implemented through a qualitative methodology. Due to these unique characteristics, this study challenged the traditional framework of the Achievement Goal Theory, by illustrating the importance of social orientation. Even at an elite level, performance achievement was not the only motivation for these athletes. As well, this study evaluated the need for new constructs to be included such as self-referenced ego involvement and self-enhancement task involvement, so that the theory can represent an athlete’s motivation more accurately. However, further research would be needed to support the introduction of these new constructs. In addition, it is recommended that future research should investigate how these different goal orientations interact and influence each other. Finally, further research should be
conducted to investigate the impact and interrelations of the team environment on performance.

However, despite its conclusions, the study has some raised issues about the results and whether they could be translated to other groups. While interpreting the results, it is important to consider the influence of individual differences. Within the genders, there were not always identical responses. Furthermore, one must consider the influence of past experiences, results and the different coaching styles on each the rower’s responses. For example, what one could label as a gender difference may be in fact a difference derived from the different coaches and their coaching philosophies.

Unfortunately, in the end, the rowers did not achieve the results they desired at the Olympics. Neither teams medalled. The post-hoc follow-ups of the 2004 Olympics, revealed that with the rowers knowing the outcome, all eight of the female rowers felt as if it was a worthwhile experience. Only two of the five male rowers replied to the post-hoc follow-up, but both also agreed that it was a worthwhile experience.
References


Appendix A.

*Interview Schedule*
“A Study on the Motivational Differences between Genders of Elite Rowers”
Interview Questions

1. Why did you start participating in rowing?
2. What does rowing have which makes it worthwhile doing?
3. What makes you continue rowing at this time?
4. When do you feel the most successful?
5. What do you think it takes to be successful?
6. When do you feel the less successful?
7. How important is being a member of a team for you in your rowing experience?
8. Would you be as motivated to row as a single rower?
9. What is your favourite workout? Why?
10. How would you describe a practice Pack row in the smaller boats? What motivates you?
11. How would you describe an “On your Own” row in the smaller boats? What motivates you?
12. How would you describe your Time trials in the smaller boats with no other boats around? What motivates you?
13. How would you describe a row in the eight?
14. When you are approaching a row in an eight or a pair, do you approach them differently mentally?
15. What boat (8+ or 2-) do you prefer to practice in?
16. What boat (8+ or 2-) do you prefer to race in?
17. Why do you race?
18. What do you think is important about racing?
19. Who do you think your most difficult competitor is?
20. How important is winning to you?
21. How important is mastering the skill of rowing to you?
22. In the middle of the race, what do you think about?
23. Is a race plan important?
24. How do you feel about the Olympics?
25. What is your goal at the Olympics?
26. What are your expectations?
27. What do you think the degree of difficulty of this task is?
28. Do you think this is achievable?
29. What means the most to you about rowing at the Olympics?
30. If you have to walk away from rowing after the Olympics, what do you think you are going to take away?

DEMOGRAPHIC QUESTIONS

31. How old will you be at the 2004 Olympics (racing starts on August 14, 2004)?
32. How many years have you been rowing?
33. How many years have you represented Canada? List your rowing accomplishments.
34. Have you ever represented Canada before at the Olympics before?
Appendix B.

Follow-Up Questions
“A Study on the Motivational Differences between Genders of Elite Rowers”
Post-Olympic Follow-Up Questions

Question One
Now knowing the outcome of the Olympics do you believe the past four years was a worthwhile experience?

Comments:

Is there anything you would change?

Question Two
Have you retired from the National Team? (double left click on the box you want to select as your answer, then click on checked as your default value)

☐ Yes
☐ No
☐ Unsure for now

Comments:
Question Three

Have you retired from the sport of rowing? (double left click on the box you want to select as your answer, then click on checked as your default value)

☐ Yes
☐ No
☐ Unsure for now

Comments:

Did you make any changes/additions to your interview?

☐ Yes
☐ No

Are the changes/additions in UPPERCASE LETTERING as per requested?

☐ Yes
☐ No

Please check off who you are:

☐ HM
☐ HW
☐ Bow
☐ 5
☐ 2
☐ 6
☐ 3
☐ 7
☐ 4
☐ Stroke