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INVESTIGATING MALE BODY IMAGE WITHIN THE GOODNESS-OF-FIT MODEL

by

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THESIS

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ABSTRACT

Lerner, Baker, and Lerner's (1985) Goodness-of-Fit model was adopted as a framework to investigate the influence of varied contexts (football and society) and associated body type ideals on body image. Determining that expectations concerning players' body types existed in the context of football tested the first assumption of the model; both mesomorphic and endomorphic body types were desired. The second assumption was framed by considering that players either match or mismatch the body ideal of each context. Out of 145 participants, 68% matched the expectations of both contexts, 30% mismatched at least one context, and 2% mismatched both contexts. The last assumption maintains that an individual will receive positive feedback if he matches the expectations of a context, resulting in positive psychosocial adjustment, and negative feedback because of a mismatch will result in negative psychosocial adjustment if a mismatch occurs. Our data contradicted the first component of this last assumption; the majority of participants who mismatched one or both contexts reported positive feedback scores (72.3%). The second component was supported, however, as participants who received positive feedback from both contexts generated the highest body image scores ($M = 4.08$ $SD = 0.64$) as compared to those who reported negative feedback in one or both contexts ($M = 3.61$, $SD = 0.81$, $d = 0.69$). Unique to this study was questioning the role that valuing the context played. Higher body image scores were observed for participants who valued society, both contexts, or neither context combined compared to participants who valued the sport context alone ($M = 4.02$, $SD = 0.65$; $M = 3.81$, $SD = 0.84$, respectively). Due to the small effect ($d = 0.28$), however, value might not add to this model.

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CHAPTER I

INTRODUCTION

> "When I was a teenager I was late to develop, and I felt extremely self-conscious about it. I was always very aware of every detail of the development of my body. I especially remember being embarrassed by not having enough muscles, not having hair on my legs or other parts of my body...I was always really self-conscious, especially when taking a shower in the locker room. It was one of those gang showers...in one big room, and there was just no way to escape the eyes of all the other boys around me." (*Jim* in Pope, Phillips, & Olivardia, 2000, p. 179)

As demonstrated by Jim's testimony, body image concerns may significantly affect the life of an individual. Body image can be considered as the subjective concept of one's physical appearance based on self-observation and the reactions of others (Lerner & Jovanovic, 1990). Consequently, individuals think, feel, and behave differently in relation to their physical appearance (Muth & Cash, 1997).

Traditionally, body image concerns have been associated with women and start as young as early childhood, although body image has the greatest impact for psychosocial development in early adolescence (Ferron, 1997; Levine & Smolak, 2002). More specifically, body satisfaction and weight preoccupation have been identified as the most prominent concerns for girls (Rosen & Gross, 1987). Between the ages of 13 and 15, the media and social feedback have the greatest effect on body image (Rosenblum & Lewis, 1999), including the development of weight loss strategies and disordered eating in

adolescent girls (Stice, 2001; Striegel-Moore, Silberstein, & Rodin, 1986). Sociocultural ideals of thinness continue to influence women beyond adolescence into early adulthood, while the media continues to perpetuate body image disturbance (Posovac, Posovac, & Weigel, 2001), and, consequently, eating disordered symptomology (Harrison & Cantor, 1997).

While women have been studied the most in relation to body image concerns, an increasing amount of evidence shows that males are also concerned with body image (Abell & Richards, 1996; Edwards & Launder, 2000; Vartanian, Giant, & Passino, 2001), and are, therefore, susceptible to body image disturbances as well (Pope et al., 2000). Research has shown that males are increasingly subjected to the mesomorphic ideal through the media (Davis, Shapiro, Elliot, & Dionne, 1993; Drewnowski & Yee, 1987, Mishkind, Rodin, Silberstein, & Striegel-Moore, 1986; Pope et al., 2000). As a consequence, they may also develop dangerous behaviours such as steroid, food supplement, and laxative abuse (Blouin & Goldfield, 1995; Komoroski & Rickert, 1992; Moore, 1990; Pope & Katz, 1994), as well as eating disordered symptomology (Maloney, McGuire, & Daniels 1988; Middleman, Vazquez, & Durant, 1998).

It is likely, however, that the mass media is not the sole contributor to one's feelings and behaviour about the body. For example, being a member of a sports team could potentially play a role in determining self-perceptions of the body. In this light, the Goodness-of-Fit (GOF) model, derived from the research of Thomas and Chess (1977), was adopted to investigate adolescent male body image. The GOF model provides a theoretical framework to study the influence of different contexts, their associated body type ideals, and the value placed on those contexts on body image perceptions. The three

assumptions of the model include: (1) There exists a set of expectations/stereotypes within each context, (2) The attributes/characteristics of the individual can match or mismatch the expectations/stereotypes of the environment (contextual demands), and (3) The individual receives positive feedback from those in the context if a match of the expectations exists, or will receive negative feedback if a mismatch of the expectations occurs (Lerner, Baker, & Lerner, 1985; Lerner & Jovanovic, 1990; Lerner & Lerner, 1994). Further, if positive psychosocial adjustment is to occur, the individual's attributes should match the contextual demands and he or she should receive positive feedback from persons within the context. On the other hand, negative psychosocial adjustment should occur if the individual mismatches the context expectations and receives negative feedback from those within the context.

There can exist, however, situations where an individual is exposed to different contexts with contrasting expectations. For example, to be effective in the domain of ballet, female ballerinas are expected to be quite thin, yet muscular at the same time. By contrast, society expects women to be thin, however, a high degree of muscularity is not the sociocultural norm. From this perspective, if considering at least two contexts, there may exist four different scenarios in terms of feedback from each context. These scenarios include: (1) A match of expectations in both contexts, where the individual receives positive feedback from both contexts, (2) A match of expectations in the first context and a mismatch in the second context, where the individual receives positive and negative feedback, respectively, (3) A mismatch of expectations in the first context and a match in the second context, where the individual receives negative and positive

feedback, respectively, and (4) A mismatch of expectations in both contexts, where the individual receives negative feedback from both environments.

To demonstrate the first scenario, a ballerina who is both thin and muscular will match the demands of the context of ballet, and should receive positive feedback from persons in this environment. She may also receive positive feedback from society if it perceives her as not overly muscular, thus she would match the demands of this context as well. As for the second scenario, a ballerina will match expectations of the ballet environment and should receive positive feedback if she is both thin and muscular; however, if society perceives her as overly muscular, she may receive negative feedback from this context and, consequently, mismatch these environmental demands. The third scenario may occur if the ballerina is thin but not muscular enough for the context of ballet. Thus, she will mismatch the expectations of ballet and should receive negative feedback in this environment, but will match in terms of sociocultural standards and should receive positive feedback from this environment. Finally, a ballerina who is not thin may receive negative feedback from both contexts and consequently mismatch the expectations of both environments.

Another aspect to consider within these scenarios is the importance of value. Although an individual may mismatch the demands of one environment, he or she may match the expectations of another context. Therefore, influences on an individual's psychosocial adjustment may lie in the context the individual values most. For example, if the ballerina fits in both contexts, it should not matter which environment she values more because she should receive positive feedback either way, resulting in positive adjustment. If the ballerina matches demands of the ballet environment and mismatches

in terms of societal norms, however, what impact would this have? One could argue that if she values feedback from persons within the domain of ballet more so than society, positive adjustment still may take place. On the other hand, if she values sociocultural ideals, negative psychosocial adjustment could develop. Furthermore, if a mismatch occurs in both contexts, negative adjustment could result regardless of the environment valued most by the individual. The two last possible scenarios that may exist are if the ballerina values either both contexts or neither context. It is difficult, however, to predict adjustment, as there are so many variables to consider. Given such varying possibilities, it becomes of interest to determine if the importance of the feedback from individuals in the particular context (i.e. value) plays a role in this GOF model.

The sport context and society are two environments where the GOF model and the issue of value may be applied in relation to body image. For example, different body types are required for different athletic activities, therefore, there are different expectations regarding body types for particular sports and/or positions within a sport. The body types can range from mesomorphic (e.g., bodybuilders) to endomorphic (e.g., sumo wrestlers). In turn, athletes' physical characteristics should match this stereotype; otherwise, they may not be effective in their roles. The stereotype for males in terms of sociocultural ideals, however, is of only one body type: mesomorphic. As such, males should appear muscular to receive positive feedback from society.

The goal of this research was to investigate male body image within the theoretical framework of the GOF model using two different contexts, as well as examining the importance of value in each context. More specifically, adolescent male football players were surveyed about the type of feedback received from both the sport

context and the social context concerning their body type, and they were questioned as to which context was of most importance to them. These football players also completed a body image questionnaire.

Football was an ideal sport to use because both the mesomorphic (e.g., quarterback) and endomorphic (e.g., offensive lineman) body types are effective in the sport, depending on the position played. In addition, males were chosen because they have been an understudied population with respect to body image concerns. The interest in the adolescent population surrounds the literature indicating that adolescent boys are most likely to want to conform to the mesomorphic ideal. More details on these latter two issues are described in the following chapter.

The next chapter will review the literature concerning this research. To begin with, a brief evaluation of body image and women will be discussed, followed by a review of the research on body image and men. Secondly, the GOF model will be discussed in detail. Subsequently, the limited research on the relationship between body image and participation in sport and athletics will be examined, ending with a brief overview of the hypotheses of the study.

CHAPTER II

REVIEW OF LITERATURE

Body Image

Different researchers have described body image in a number of ways, with definitions varying in complexity. For example, Abell and Richards (1996) simply characterised body image as an individual's feelings about his or her physical self. The following year, Muth and Cash (1997) described body image as a multidimensional construct demonstrating people's thoughts, feelings and behaviours in relation to their physical appearance. Finally, Lerner and Jovanovic (1990) described body image as cognitions and emotions of one's physical appearance based on self-observation and the reactions of others. No matter how body image is defined, concerns about physical appearance are prevalent in today's society, with concerns about weight and shape classically considered as a female issue (Rozin & Fallon, 1988).

Body image in females. From early childhood, young girls are inundated with the socioculturally thin ideal perpetuated by the media (Cusumano & Thompson, 1997; Brownell, 1991; Stice & Shaw, 1994; Striegel-Moore et al., 1986). In fact, problematic body dissatisfaction and weight preoccupation begin in early adolescence (Rosen & Gross, 1987). According to Rosenblum and Lewis (1999), the media and sociocultural feedback have the greatest effect on body image between the ages of 13 and 15, and remain at this level until the age of 18. Not surprisingly, Levine and Smolak (2002) reported that approximately 40-70% of female adolescents are dissatisfied with at least two parts of their bodies. Through social pressure, adolescent girls have reported that

they are influenced to judge themselves based on how closely they perceive themselves to have the thin ideal (McCabe, Roberts, & Morris, 1991).

Researchers have argued that through these sociocultural influences, adolescent girls develop body image disturbances and consequently engage in various weight loss strategies and disordered eating habits (McCarthy, 1990; Posovac et al., 2001; Ricciardelli & McCabe, 2001; Stice, Presnell, & Spangler, 2002; Striegel-Moore et al., 1986; Thompson & Heinberg, 1999). For example, Harrison and Cantor (1997) found that the media predicted drive for thinness, body dissatisfaction and eating disordered symptomology in women. Stice and colleagues (2002, 1994) reported similar findings, where adolescent girls developed restrictive eating habits and bulimic tendencies as a result of media consumption. Finally, Silberstein, Striegel-Moore, Timko, and Rodin (1988), and McDonald and Thompson (1992) showed that as a consequence of sociocultural pressures towards thinness, over-exercising was positively connected to body dissatisfaction and eating disturbance in females. Despite such robust findings in women, a less studied area is body image concerns for men and possible sequelae. In the next section, the research to date on body image in males is discussed.

Body image in males. There is an increasing amount of research indicating that men are also concerned with the appearance of their bodies (Abell & Richards, 1996; Edwards & Launder, 2000; Vartanian et al., 2001). For example, Drewnowski and Yee (1987) reported that men are dissatisfied with their body image, and Raudenbush and Zellner (1997) reported a decrease in body satisfaction among men as well. More specifically, body dissatisfaction and body image concerns are progressively increasing in males (Furnham & Calnan, 1998; McCabe, Ricciardelli, & Banfield, 2001) and men's

evaluation of their bodies is becoming increasingly more negative (Luciano, 2001; Pope et al., 2000).

One of the reasons for the increase in body image concerns among men, similar to women, is argued to lie in the media. Muscularity, as shown through the media, has been the standard of attractiveness (Jones, 2001) and as a result, today's society values an increasingly muscular body type (Pope et al., 2000). For example, Pope, Olivardia, Gruber, and Borowiecki (1999) evaluated the male body through the evolution of action toys and found that the North American male ideal is growing steadily muscular. Given that males are constantly subjected to the cultural ideal (Davis et al., 1993; Drewnowski & Yee, 1987, Mishkind et al., 1986; Pope et al., 2000), they are becoming increasingly more aware of the cultural norms, and consequently feel pressure to conform to the mesomorphic body type (Furnham & Calnan, 1998; Rozin & Fallon, 1988). In fact, Lerner, Karabenick, and Meisels (1975) found that boys express a preference for the muscular body type as early as middle childhood; however, negative body image in boys is most prevalent in adolescence (McCabe et al., 1991). According to Kearney-Cooke and Steichen-Asch (1990), adolescent boys feel that the ideal body type is strong and muscular, and "wish to avoid being (or appearing) fat, flabby, or out of shape" (Levine & Smolak, 2002, p. 74). Estimates of adolescent boys who wish to be thinner range from 17.0% to 30.0%, and boys who wish to be larger range from 13.0% to 48.0% (McCabe & Ricciardelli, 2003).

As indicated by Mishkind and colleagues (1986), sociocultural beliefs of masculinity are associated with the male sex role, which encompasses being powerful, strong and efficacious. Similar to their female counterparts, males have also been shown

to develop body dysmorphia (Pope et al., 1999), and consequently engage in harmful behaviours in order to attain the muscular ideal (Harmatz, Gronendyke, & Thomas 1985; Pope et al., 2000). For example, studies by Silberstein and colleagues (1988), and McDonald and Thompson (1992) reported that as a result of societal norms, males engaged in over-exercising to attain the muscular ideal, which was positively related to body dissatisfaction and eating disturbance. Furthermore, Moore (1990) reported the use of laxatives, dieting, fasting, binging, and purging as weight change strategies among adolescent boys to increase muscularity. Maloney and colleagues (1988) also reported that adolescent boys wishing to change weight frequently engaged in binging and/or purging. The prevalence of adolescent boys who engage in weight loss strategies ranges between 21.5% and 50.0%, and those who wish to gain bulk ranges of from 21.2% to 53.8% (McCabe & Ricciardelli, 2001a).

Alternatively, Pope and Katz (1994) found that men adopt dangerous exercise patterns and abuse steroid and food supplements to become more muscular. Similarly, Komoroski and Rickert (1992) found that men abuse anabolic-androgenic steroids (AAS) and performance enhancing supplements to conform to this ideal. Blouin and Goldfield (1995) found that bodybuilders are especially at risk for muscle dysmorphia and AAS abuse to attain the culturally ideal male body. Moreover, it has also been shown that those who abuse AAS are at risk for eating disorders (Blouin & Goldfield, 1995; Franco, Tamburrino, Carroll, & Bernal, 1998; Goldfield, Harper, & Blouin, 1998).

Due to the prevalence of such unhealthy behaviours, there is a need to examine ways in which to decrease the likelihood of adolescent boys developing these body image

concerns and consequent behaviours. The Goodness-of-Fit model can be characterized as a good theoretical framework to guide inquiry in this area.

Goodness-of-Fit Model

The Goodness-of-Fit model (GOF) stems from a theory labelled Developmental Contextualism (Lerner 1986, 1991; Lerner & Kauffman, 1985). The authors of this theory maintain that individuals act as both products and producers of their own psychosocial development. For instance, people are producers of their psychosocial development by encouraging various reactions when socializing with others as a result of their physical individuality (e.g., body type) and/or psychological individuality. Accordingly, these reactions, or products, of socialization feed back to these individuals and further develop their psychosocial growth.

The GOF model, derived through the research of Thomas and Chess (1977) on temperament builds on the theory of Developmental Contextualism by proposing three assumptions. The first assumption presumes that there are expectations or stereotypes within each context (Lerner et al., 1985; Lerner & Jovanovic, 1990). For example, in a particular physical or social setting, demands are placed on an individual. These demands may include attributes, values or stereotypes assumed by others in the environment (Lerner et al., 1985). Secondly, a person can match or mismatch the stereotype(s) of the environment. In other words, the individuals' characteristics will be congruent or incompatible with the particular demands of the context in which they are involved (Lerner et al., 1985; Lerner & Jovanovic, 1990; Lerner & Lerner, 1994). The final assumption of the GOF model states that an individual will receive positive feedback if a match with expectations exists, but will receive negative feedback if a mismatch with the

expectations exists. Specifically, the more congruent the characteristics, the more positive the feedback received (Elliot & Eisdorfer, 1982). Therefore, for positive psychosocial adjustment to occur, persons within the context should provide positive feedback concerning the individual's characteristics (Lerner et al., 1985, Lerner & Jovanovic, 1990; Lerner & Lerner, 1994). Consequently, positive feedback has been shown to lead to feelings of competence (Broverman, Vogel, Broverman, Clarkson, & Rosenkrantz 1972), as well as to feelings of effectiveness (Erikson, 1968; McCandless, 1970). On the other hand, if negative feedback is provided due to a mismatch, negative adjustment will develop (Lerner & Lerner, 1994).

One of the early studies on goodness-of-fit was conducted by Jahoda (1961) who studied person-environment fit in two communities in the late 1950s. She determined through qualitative interviews that the expectations of one community consisted of the following attributes: the residents were pioneers, they were 35 years or older, and they were actively involved with the interests of the community. The second community's characteristics included mostly black women aged 45 years or older and who were of low socioeconomic status. The results revealed that those residents who did not match the attributes characteristic of each community felt more stressed and out of place. Conversely, those residents who felt they matched the characteristics of their respective communities felt more satisfied and experienced less stress than their unmatched neighbours.

In a more recent study, East, Lerner, Lerner, and colleagues (1992) examined the relationships between temperamental fit of the adolescents in the Pennsylvania Early Adolescents Transitions Study (PEATS) and the demands of their peers, their peer

relations, and their psychosocial competence. The short longitudinal study tested the transition of 150 young adolescents from the beginning of the sixth grade to the end of the seventh grade. Temperament was measured using the Dimensions of Temperament Survey (DOTS by Lerner, Palermo, & Nesselroade, 1982) and the revised DOTS (Windle & Lerner, 1986), demands were assessed by surveying peers, and psychosocial competence was rated by their teachers. The results showed that temperamental fit with peer demands resulted in positive peer relations and teacher-rated competence. Alternatively, those with poor fit were found to have negative peer relations and were rated poorly by their teachers.

As a final example, French, Rodgers, and Cobb (1974) investigated intelligence and peer relations in relation to person-environment fit in an American national sample of approximately 2000 high school boys. The authors assessed both intelligence and peer relations using questionnaires they developed specifically for adolescents to determine person-environment fit at school. Results of the two questionnaires revealed that boys with poor peer relations indicated lower scores on measures of mental health and were less satisfied with the school environment compared to the boys who demonstrated positive peer relations. Similar findings were reported for intelligence, where boys who perceived themselves as intelligent were more satisfied and scored higher on measures of mental health than boys who did not perceive themselves as intelligent.

Although the usefulness of goodness-of-fit has been researched throughout the past several decades, a noted gap in the literature is that, until the development of this study, the model has never been studied in the sport context relative to body image. More specifically, there have been no studies evaluating expectations in the sport context, nor

have there been studies matching individual attributes to athletic demands. Finally, no studies have investigated the importance of the value the individual places on the feedback from persons in the context and its interactions with the matching or mismatching of expectations. Given that this research was planned to address these gaps in the context of body image and sport, a review of the limited research on body image of males in athletics will be discussed next.

Male Body Image and Athletics

Physical activity, such as athletics, is said to lead to positive body image (Eide, 1982). For instance, Asçi, Gökmen, Tiryaki, and Asçi (1997) found that participation in sport had positive psychological effects on body image among adolescent male athletes. More specifically, the purpose of their study was to determine if there were significant differences between the self-concepts of high school male athletes and their non-athlete counterparts. A secondary goal was to determine the relationship between self-concept and body satisfaction for athletes and non-athletes. The sample consisted of 174 Turkish high-school male athletes and 174 Turkish high-school male non-athletes between grades nine and eleven. The Harter Self-Perception Profile for Adolescents (1988) was used to assess the self-concept of the participants, and the Bercheid, Walster, and Bohrnstedts's Body Image Questionnaire (1973) was used to measure body satisfaction. The results indicated that athletes demonstrated higher social acceptance and physical appearance scores, as well as higher mean body image satisfaction scores than non-athletes.

Furthermore, Wilkins, Boland, and Albinson (1991) also reported that there were psychological benefits associated with sport involvement in college athletes. A university sample of 177 athletes (99 males and 78 females) and 117 non-athletes (39 males and 78

females) were compared on several scales including ones that measured eating disordered symptomology, self-esteem, and body image. The results showed that athletes exhibited lower eating disordered scores, as well as higher self-esteem and body image scores. The authors explained their findings in relation to performance, where any negative feelings athletes' may have concerning their bodies could be negated because there was a greater emphasis on performance. This could be attributed to the value these athletes placed on the sport context; however, this was not examined.

In addition to positive body image, participation in sport has also been purported to lead to increased feelings of physical effectiveness in adolescent boys, which has been found to be more valued than physical appearance (Lerner, Orlos, & Knapp, 1976). For example, Grant and Fodor (1986) studied adolescent attitudes toward body image. The sample consisted of 55 males and 13 females between the ages of 15 and 18, and was tested on physical attractiveness, self-esteem, and physical effectiveness using scales adapted by Lerner and Karabenick (1974), and Lerner and colleagues (1976). The results revealed that males viewed physical effectiveness as more important than physical appearance (consistent with Lerner et al., 1976) and demonstrated their physical effectiveness through various activities, including sport.

Moreover, adolescent boys have been shown to gain greater peer acceptance and receive positive feedback from their peers when demonstrating strength and athletic success (Eppright, Sanfacon, Beck, & Bradly, 1997), consequently leading to feelings of physical effectiveness and positive body image (McCabe et al., 1991). For instance, Holland and Andre (1994) determined that athletes receive greater social status than non-athletes in their study of high school and college students. The participants were 171

male and 251 female high school students, and 153 male and 166 female college students. The participants were measured on a variety of variables, including how they would like to be remembered/how they were remembered after high school, which friends/mates they would prefer to have, and self-esteem. The results revealed that students wished to be remembered as star athletes as compared to brilliant students, most popular, or a leader in activities because they gained more social status as athletes. In terms of friends or mates, students also preferred to be associated with athletes, but more specifically, football players were selected most often in both categories (friends and mates). Lastly, it was determined that male athletes had higher self-esteem scores compared to non-athletes.

Similarly, Murray (1976) also found that adolescent males who participated in sport were more valued by their peers. The participants consisted of 884 male high school students in the U.K., and were tested on sport performance ratings and sociometric measures including peer evaluation, peer acceptance, and peer prestige. The results indicated that athletes were more accepted by their peers and received more positive feedback than non-athletes.

Finally, Petrie (1996) observed that young male athletes experience positive psychological states such as increased feelings of effectiveness and security with their body shape. The participants included 230 male and 250 female non-athletic college students, and 187 male and 113 female college athletes, and were tested on behavioural and psychological indices of eating disorders. The results revealed that all athletes, regardless of sport or gender, reported higher levels of body satisfaction and effectiveness, and less eating disordered symptomolgy than non-athletes.

As shown, participation in sport and its impact on body image has been documented in the literature; however, as previously mentioned, the GOF model has not been studied in the athletic environment in relation to body image until now. Moreover, the four scenarios that can arise from the effect of two different contexts and the contributions of which context is most valued have not been investigated. As such, the next section will discuss the logic of using the GOF model in terms of body image in the sport context.

Body Image, Goodness-of-Fit, and the Sport Context

Recall that the sport context of interest in this study was that of football. Beginning with the first assumption of the GOF model, it is interesting to note that the sport of football requires certain body types for different positions. As a result, it may be assumed that there are expectations as to what body type a player should have depending on which position he is playing. As a pilot study to test this first assumption, we presented a list of the various positions in football to 16 coaches from Quebec and Eastern Ontario and asked them to give their opinions as to whether a mesomorphic body type (described as lean and muscular) or an endomorphic body type (described as big and heavy-set) was required for each position. Through this preliminary survey, we identified that preferred body types do exist. For instance, the quarterback is one of several positions where a mesomorphic body type is required, and the endomorphic body type is best suited, for example, for an offensive lineman. Positions where coaches were in complete disagreement of body type (i.e., coaches believed the position to be mesomorphic, endomorphic, or either type) were excluded from the analysis (see Appendix A).

Given that the there are two main body types expected in football and that these are linked with player positions, the second assumption of the GOF model becomes evident; that is, a player's body type should match the required body type for the position he wishes to play. In other words, if an offensive lineman has less of an endomorphic body type, he may not be as effective in his role as compared to an offensive lineman who is especially endomorphic, and will consequently mismatch the expectations of the environment. Similarly, a mesomorphic individual will match the expectations of a quarterback, but will mismatch those of an offensive lineman.

The final assumption of the GOF model in this context states that a player should receive positive feedback from persons within the football environment when he matches its expectations, whereas negative feedback should be received from persons in the context if he mismatches the expectations. Further, positive feedback received by players who match their position expectations should result in positive psychosocial adjustment in terms of body image. In contrast, negative feedback received by players who mismatch their position expectations should lead to poorer psychosocial development in the form of negative self-perceptions of the body.

At this point, the research question has followed the basic GOF Model. An additional component of our research though concerns how the individual's own "value system" may influence the results in situations where there is negative feedback in one context (i.e., a mismatch) but not in another context. This has been incorporated into this study through the examination of body image in two contexts: the athletic environment and societal norms.

As noted, the sport context of football has certain expectations concerning body type; more specifically, this athletic environment requires either mesomorphic or endomorphic body types for its various positions. On the other hand, society and the media seem to value only the mesomorphic body type for males. As such, there are multiple combinations of the second and third GOF model assumptions: (1) Football players may match the expectations of both contexts and consequently receive positive feedback from both, (2) they may match the expectations of the football environment and receive positive feedback, but mismatch the expectations of society and receive negative feedback, and (3) vice versa, and (4) they may mismatch the expectations of both contexts and, therefore, receive negative feedback from both. It is the players value systems, however, which may be important when considering their feelings and perceptions of their bodies. In other words, if a player does not value a context where he is receiving negative feedback, then he may still have positive views of his body. Alternatively, if he does value this context, he could have negative body image perceptions. Thus, this research has probed whether the value of the context relative to the individual is a factor of importance in the GOF model.

Purpose and Relevance

Given the review of literature, the researchers believe that this study was essential because it has added to the limited research on males and body image, and it has investigated the GOF model in two different contexts as well as the importance of value in each context. Adolescent boys have been shown to prefer the mesomorphic body type (Lerner et al., 1975), and consequently engage in harmful behaviours in order to attain this ideal. With future research, the promotion of positive activities where having an

endomorphic body type will increase body image self-perceptions in the face of society's mesomorphic ideal, as well as decreasing the potential of adopting negative behaviours to compensate for the lack of fit with this ideal may be possible.

Hypotheses

Based on the review of literature which indicates that participation in sport has positive psychological effects on body image among adolescent male athletes (Asçi et al., 1997), and that participation in sport is highly valued among teenagers (Holland & Andre, 1994; Murray, 1976), it was the researchers belief that players who matched the expectations of both contexts would receive positive feedback from both environments and would have the highest body image scores. On the other hand, players who mismatched the expectations of one environment, thus receiving negative feedback, and matched the expectations of the other context, thus receiving positive feedback, would have lower body image scores. Finally, players who mismatched the expectations of both contexts and received negative feedback from both would have the lowest and most negative body image scores.

While the above-mentioned hypotheses were based solely on the existing GOF model, a more complex set of hypotheses emerged when value was taken into consideration. To begin with, players who received positive feedback from both environments would have the highest body image scores regardless of the context valued. Secondly, players who received positive feedback from the sport context, but received negative feedback from society would have high body image scores if sport were valued, but would have low body image scores if society were valued. Furthermore, players who received negative feedback from the sport context and received positive feedback from

society would have low body image scores if sport were valued, but would have high body image scores if society were valued. Likewise, players who received negative feedback from both environments would have the lowest negative scores regardless of the context valued. Moreover, for players who valued either both contexts or neither context, body image score prediction would be difficult. The focus of the results and discussion concerning value, however, will surround the participants who received positive feedback from one context and negative feedback from the other, and who valued either sport or society.

These hypotheses were examined by surveying male adolescent club level and high school football players. A questionnaire associated with the value of sport-related and sociocultural-related feedback was used to determine which context the players' valued most, and a second questionnaire was used to determine each player's body image perceptions. A more detailed explanation of the methods follows in the next chapter.

CHAPTER III

METHODOLOGY

Participants

One hundred and seventy four male football players between the ages of 13 and 22 were recruited from either club level or high school football teams in and around the Montreal and Ottawa areas. As this study focused on adolescent male body image, those participants who fell out of the 15 to 20 year old range were excluded from the analysis ($n = 21$). Furthermore, participants who did not fully complete all questionnaires ($n = 25$), or had positions where coaches were not in complete agreement of body type ($n = 6$) were excluded from the analysis ($n = 25$). Incomplete questionnaires included those where participants did not report height, weight, player position, or did not answer all questions. Accordingly, 145 participants were left for analyses, with a mean age of 16.62 years ($SD = 1.44$).

Materials

The measures used in the study included a demographic questionnaire, two visual image scales (Stunkard, Sorensen, & Schulsinger, 1983; Winitch, 1993), The Sociocultural Influences Questionnaire (McCabe & Ricciardelli, 2001b), and the Appearance Evaluation Subscale (AES) of the Body-Self Relations Questionnaire (Cash, Winstead, & Janda, 1986). A bioelectrical impedance analyzer, the TANITA-BIA (TBF-300A), was also used to determine percent body fat in order to verify if participants' body types matched the required body type for their respective positions.

The demographic information sheet included player position (for congruency category classification), age, height and weight (to determine Body Mass Index), ethnicity, and grade in school (see Appendix G). Obtaining these factors was necessary to determine if any acted act as covariates; however, later this was deemed unnecessary.

The first of the two image scales portrayed nine male figure drawings with differing degrees of muscularity (Winitch, 1993), which has demonstrated good validity and reliability (Lynch & Zellner, 1999). The second image scale consisted of nine male figure drawings ranging from extremely thin to extremely obese, and also has established acceptable validity and reliability (Stunkard, Sorensen, & Schulsinger, 1983) (see Appendix D). These drawings served to determine perceived body types, as well as to help classify the congruency category for each participant, that is, if actual body type matched required body type for player position.

A modified version of The Sociocultural Influences Questionnaire (SIQ) by McCabe and Ricciardelli (2001b) was used to determine the type of feedback the players received from society and the sport environment, and to determine which context the athletes valued more (i.e., sport or society). The questions related to types of behaviours associated with feedback in McCabe and Ricciardelli's original version were excluded. In addition, McCabe and Ricciardelli included father, mother, best male friend, best female friend, and the media as the primary persons. For the purpose of this study, however, the questionnaire was modified to include the following primary persons: the coach, football peers, non-football peers, and the media. For each primary person, three feedback perception questions were asked. As an example, "What type of feedback do you get

from your coach(es) about the size or shape of your body?" was asked to determine coach related feedback (sport category).

Furthermore, three "value" questions that corresponded to each feedback question were listed. Each question probed as to how important each primary person's feedback was to the athletes. For example, "How important to you is what your coach(es) think about the shape of your body?" was asked to determine coach value (sport category). McCabe and Ricciardelli's (2001b) version had included only one of these questions, and the researchers added two to have a stronger value measure for the study (Appendix E). McCabe and Ricciardelli have shown, through exploratory factor analysis and confirmatory factor analysis, that the questionnaire demonstrates good structure and psychometric properties. Specifically, exploratory factor analysis for the parental and peer factor and the media factor yielded Cronbach's alphas of 0.77 and 0.96, respectively. Confirmatory factor analysis produced Cronbach's alphas of 0.72 and 0.84 for the same factors. Furthermore, they have demonstrated that the scale is robust and reliable.

The second questionnaire, the Appearance Evaluation Subscale (AES) of the Body-Self Relations Questionnaire by Cash, Winstead, and Janda (1986), was used to evaluate the athletes' body image perceptions (see Appendix F). The AES consists of seven statements related to body appearance. Beside each statement is a 5-point Likert scale, ranging from *definitely disagree* to *definitely agree*. Some of the statements included: "I like my looks just the way they are" and "I like the way I look without clothes" (see Appendix F). This questionnaire, along with its subscales, has also demonstrated good validity, reliability, and utility based on Brown, Cash, and Mikulka's

(1990) factor analysis and subsequent concordance analyses. Specifically, the AES yielded a Cronbach's alpha of 0.996.

Finally, the bioelectrical impedance analysis method of obtaining percent body fat through bioelectrical impedance has been compared to standard methods of testing body composition (e.g. underwater weighing, DEXA, tetrapolar models), and has demonstrated good reliability and validity in several populations, including male adolescent athletes (Cable, Nieman, Austin, Hogen, & Utter, 2001; Spencer, Lingard, & Bermingham, 2003; Swartz, Evans, King, & Thompson, 2002; Utter, Scott, Oppliger et al., 2001). Correlations between bioelectrical impedance analysis and the standard methods have ranged between 0.67 and 0.92 (Cable et al., 2001; Spencer et al., 2003; Utter et al., 2001).

Procedure

Following ethics approval from the University's Research Ethics Board (see Appendix H), football organizations were phoned and requested to allow a researcher to show at the beginning of practices to read a verbal recruitment text to all players. This text explained the purpose of the research, the demands of the study, and how anonymity and confidentiality would be ensured (see Appendix B). Subsequently, the package of questionnaires was handed out separately to each participant. An information letter was included as the first page of the package, which informed the participants that their results would be kept confidential and that they could withdraw from the study at any time without negative consequence. Other pertinent information such as the package content was also written in the information letter (see Appendix C).

For the visual image scales, the participants were instructed to pick a figure they felt best represented their body shape. Specifically, participants were asked to circle only

one image from the scale that they felt suited them best. As for the SIQ and the AES, the participants were asked to circle the statement and/or numbers on the Likert scale that best described how they felt regarding each question.

Following the completion of the questionnaires, each participant stood on the body composition analyzer, and the athletic option for calculations was selected as opposed to the standard option. The TANITA-BIA provided a printout that recorded percent body fat in addition to Body Mass Index (BMI), basal metabolic rate (BMR), impedance, fat mass, and fat free mass. The participants were then instructed to place their respective printouts in the envelope with their completed questionnaire, seal their envelopes, and return them to the researcher. To protect anonymity, participants did not place their names on the questionnaires, printouts or envelopes. Informed consent was implied through the completion of the questionnaires.

Data Analysis

The following section will detail how the participants were grouped into different categories for the analysis. As well, each of the dependent measures will be explained. To begin with, a body type assessment was conducted based on the results from the visual image scales and percent body fat. A participant was considered as having a mesomorphic body type if his percent body fat was less than 20% (Heyward, 1998) and he circled a figure drawing on the mesomorphic scale. Conversely, a participant was considered as having an endomorphic body type if his percent body fat was 20% or higher (Heyward, 1998) and he circled a figure drawing in the endomorphic range of the second visual image scale. Moreover, if percent body fat was unable to be obtained (e.g., researcher did not have access to an electrical outlet to use body composition analyzer, *n*

= 22), a BMI of 28 was used as the cut-off point to identify body type, that is, a participant with a BMI of less than 28 was considered as mesomorphic, and a participant with a BMI of 28 or greater was considered as endomorphic (Heyward, 1998). If there were any discrepancies between percent body fat or BMI and the image circled, the percent body fat or BMI was chosen to place the participant in the appropriate body type category. Surprisingly, this happened less than three percent of the time, suggesting that these boys have fairly accurate perceptions of their bodies. Following this procedure, there were 108 mesomorphs and 37 endomorphs in the final sample.

Further categorisation of the sample was conducted based on whether participants' body types matched or mismatched the expectations of the contexts. The participants were grouped into a "congruency with sport and society" category, where they were placed into one of four groups: (1) A match sport and match society group; (2) A mismatch sport and match society group; (3) A match sport and mismatch society group; and (4) A mismatch sport and mismatch society group. Participants who failed to report their position could not be placed into a congruency category and were excluded from the analysis (n = 8).

Feedback and value dependent measures. The feedback and value scores produced from the SIQ included the athletes' perceptions of these aspects from the coach, football peers, non-football peers, and the media (considered as the four primary persons). Feedback scores from the primary persons were calculated by assigning a number to the responses on the questionnaire. The responses were on a 6-point Likert scale ranging from *no feedback* to *extremely positive feedback*, where *extremely negative feedback* was scored as a 1 and *extremely positive feedback* was scored as a 5. Each

feedback subscale for each of the primary persons consisted of three questions; therefore, to obtain a feedback score from one of the primary persons, the coach, for example, the score from each question was averaged. For instance, if the responses circled were 3, 4, and 2, then the feedback score for the coach would equal 3. Participants who circled *no feedback* on two out of the three questions for each primary person were excluded from the analysis ($n = 18$); the researchers felt that only one response out of three was not a good representation of the feedback received.

Once the feedback score from each of the primary persons was calculated, the feedback scores from the two primary persons of the sport context (i.e., the coach and football peers) were added together to form the sport total feedback score, the maximum of which was 10. The same process was performed to calculate the society feedback scores (i.e. scores from the non-football peers and from the media were added for a score out of 10).

Lastly, all participants were placed into feedback groups, which consisted of (1) a positive sport feedback score and positive society feedback score group, (2) a positive sport feedback score and negative society feedback score group, (3) a negative sport feedback score and positive society feedback score group, and (4) a negative sport feedback score and negative society feedback score group. Participants were considered in a positive category if their scores were six or higher, and were placed in a negative category if their scores were lower than six. The method for scoring the questionnaire was obtained by emailing the first author directly.

The dependent measure of value followed a similar process for all aspects. That is, value scores were calculated for each primary person, and sport and society totals were

determined. Finally, participants were placed into the following groups with respect to value: (1) sport valued, (2) society valued, (3) both contexts valued, or (4) neither context valued.

Body image. A body image score for each participant was calculated according to AES the scoring manual (Cash, 2000). This process consisted of averaging the numbers that the participants circled on the AES; however, the last two items on the questionnaire were reverse score items. For instance, if the circled numbers were 4, 4, 4, 4, 4, 2, 2 in order from questions 1 to 7, the body image score would equal 4 (4 + 4 + 4 + 4 + 4 + 4 + 4 = 28 / 7 = 4). The lowest value possible was 1 and the maximum was 5.

Statistics. Originally it was anticipated that ANOVAs would be performed to determine the differences among groups; however, due to the large variation in sample size across the different categories, both parametric and nonparametric analyses were deemed inappropriate. Consequently, descriptive statistics and unweighted effect size comparisons of means were calculated for the dependent measures. Effects sizes of 0.20, 0.50, and 0.80 are considered as small, medium, and large, respectively (Cohen, 1977).

CHAPTER IV

RESULTS

Descriptive statistics concerning frequencies and percentages will be provided with respect to the different categories in which the participants were grouped. Based on the classification systems, Table 1 presents the percentages for congruency categories and feedback groups. The congruency category refers to whether players' body types match or mismatch the expectations of sport and society, respectively. Feedback groups refer to whether participants felt they received positive or negative feedback concerning their body shapes from each context.

As can be seen in Table 1, the majority of participants were placed into the match/match congruency category (67.6%). The majority also felt they received positive feedback from both contexts (76.6%). Further examination of Table 1 suggests that when combining both congruency categories and feedback groups, the majority of participants felt they received positive feedback from both contexts, regardless of the congruency category in which they were placed (positive/positive row).

Feedback Scores

In terms of mean feedback scores, sport and societal feedback yielded similar mean scores ($M = 6.96$, $SD = 1.14$; $M = 6.79$, $SD = 1.22$, respectively, [$d = 0.14$]). With respect to body type, mean sport feedback scores for mesomorphs and endomorphs were similar ($M = 6.99$, $SD = 1.21$; $M = 6.85$, $SD = 0.90$, respectively, [$d = 0.13$]); however, mean societal feedback scores were quite different among mesomorphic and endomorphic participants ($M = 7.03$, $SD = 1.20$; $M = 6.10$, $SD = 1.02$, respectively, [$d =$

0.84]). Nevertheless, using 6 as an operational definition, both context and body type feedback scores were positive, indicating that, in general, all participants felt they received positive feedback from both environments.

Table 1

Percentages for Congruency Categories and Feedback Groups

Feedback Groups (sport/ society)	Match/ Match (67.6%)	Mismatch/ Match (6.9%)	Match/ Mismatch (23.4%)	Mismatch/ Mismatch (2.1%)
Positive/ Positive (76.6%)	78.6 % (n = 77)	90.0 % (n = 9)	67.6 % (n = 23)	66.7 % (n = 2)
Positive/ Negative (12.4%)	7.1 % (n = 7)	10.0 % (n = 1)	26.5 % (n = 9)	33.3 % (n = 1)
Negative/ Positive (7.6%)	10.2 % (n = 10)	0 % (n = 0)	2.9 % (n = 1)	0 % (n = 0)
Negative/ Negative (3.4%)	4.1 % (n = 4)	0 % (n = 0)	2.9 % (n = 1)	0 % (n = 0)

Note. Percentages are also presented for each congruency category and feedback group. The n's of these groups are presented in Tables 2 and 3.

Value Scores

As for mean value scores, the sport context and society also generated similar mean scores (M = 5.66, SD = 1.93; M = 5.35, SD = 2.03, respectively, [d = 0.16]). In terms of mean value scores and body type, mesomorphic and endomorphic participants yielded the same sport value scores (M = 5.66, SD = 1.89; M = 5.66, SD = 2.07,

respectively, [$d = 0$]). On the other hand, society value scores with respect to body type were slightly different (mesomorphs: $M = 5.57$, $SD = 2.01$; endomorphs: $M = 4.69$, $SD = 1.97$, respectively, [$d = 0.44$]). Both context and body type value scores, however, were lower than 6, indicating that, on average, participants did not place much value on either context.

Body Image

Body image means will be presented according to (1) body type, (2) congruency category, (3) feedback groups, (4) value groups, and (5) by feedback and value groups. In terms of body image means and body type, mesomorphic players demonstrated higher body image scores ($n = 108$, $M = 4.14$, $SD = 0.62$) than did endomorphic players ($n = 37$, $M = 3.51$, $SD = 0.70$). This comparison yielded a large effect ($d = 0.95$).

Table 2 provides the results of body image means for each congruency category. As shown, participants who matched the expectations of both contexts had the highest body image mean, and those who matched the sport context only had the lowest body image mean. This comparison also generated a rather large effect ($d = 1.08$).

Table 2

Body Image Means for Congruency Categories

Congruency Category (sport/society)	*n*	*M*	*SD*
Match/Match (mesos)	98	4.18	0.62
Mismatch/Match (mesos)	10	3.74	0.58
Match/Mismatch (endos)	34	3.48	0.68
Mismatch/Mismatch (endos)	3	3.86	1.03

Body image means for each feedback group are presented in Table 3. These results showed that participants who received positive feedback from both contexts had the highest body image mean as compared to those from the double negative group, with a rather large effect ($d = 0.97$). The remaining two groups produced body image means in between the former two groups. Comparing the double positive feedback group with the other three groups combined generated a medium effect ($d = 0.66$).

Table 3

Body Image Means for Feedback Groups

Feedback Group (sport/society)	*n*	*M*	*SD*
Positive/Positive	111	4.08	0.64
Positive/Negative	18	3.61	0.86
Negative/Positive	11	3.87	0.64
Negative/Negative	5	3.31	0.94

Table 4 provides the body image means for each value group. The results indicated that participants who value society, both contexts or neither context had similar body image means, all of which were higher than the mean of the sport value group. By combining the former means, a small effect was calculated ($d = 0.32$). Important to note is that only approximately one third of participants valued feedback from both contexts, whereas almost half of the participants did not value feedback from either context (i.e., the value scores were lower than 6).

Table 4

Body Image Means for Value Groups

Value Group	*n*	*M*	*SD*
Sport Valued	20	3.81	0.84
Society Valued	15	4.05	0.60
Both Valued	50	4.01	0.61
Neither Valued	60	4.00	0.75

Finally, Table 5 shows the body image means when combining feedback and value groups. As can be noted, lower or non-existent sample sizes are observed when the data is spread out in this manner. The highest body image mean can be found in the negative/positive feedback group who valued both contexts; however, only three participants are represented in this cell.

The next four highest body image means all fall into the positive/positive feedback row. The group that values society most had the highest body image mean (M = 4.18, SD = 0.56) as compared to the other value groups combined (M = 4.07, SD = 0.65); however, this yielded only a small effect (d = 0.18). The lowest body image score was that of one participant who indicated that he received negative feedback from both contexts and who valued sport.

Table 5

Body Image Means for Feedback Groups by Value Groups

Feedback group (sport/society)	Sport Valued			Society Valued			Both valued			Neither valued		
	n	*M*	*SD*	*n*	*M*	*SD*	n	*M*	*SD*	*n*	*M*	*SD*
Positive/ Positive	16	4.06	0.66	12	4.18	0.56	43	4.07	0.57	40	4.08	0.73
Positive/ Negative	3	3.09	0.44	2	3.72	0.60	3	3.05	0.08	10	3.91	1.00
Negative/ Positive	.	.	.	1	3.14	.	3	4.43	0.29	7	3.74	0.62
Negative/ Negative	1	1.86	.	1	3.14	.	1	3.14	.	3	3.86	0.50

Note: A dot represents a nonexistent sample or value.

CHAPTER V

DISCUSSION

The purpose of this study was to investigate male body image within the GOF model using two different contexts, as well as examining the importance of value in each context. The first and second assumptions of the model were addressed in a pilot study by (1) determining that expectations concerning body types existed in both contexts (both mesomorphic and endomorphic body types are required for football, and the mesomorphic body type is the ideal in society); and (2) verifying that participants either matched or mismatched their positions with respect to body type, and either matched or mismatched society's mesomorphic ideal.

With respect to body image means and body type, mesomorphic participants generated higher body image scores than did the endomorphic participants (mesomorphs: $M = 4.14$, $SD = 0.62$; endomorphs: $M = 3.51$, $SD = 0.70$). This, in fact, yielded a large effect ($d = 0.95$). These results were not surprising, as research has indicated that muscularity is the standard of attractiveness (Jones, 2001). Further, adolescent boys do not wish to appear flabby or out of shape (Levine & Smolak, 2002).

On the other hand, endomorphic participants had a body image mean that was above average when compared to findings from previous studies conducted with similar age groups. For example, Daley and Hunter (2001) found that the average AES body image score for adolescent male kayakers with a mean age of 15.5 years ($SD = 1.2$) was 3.24 ($SD = 0.37$). In addition, Keeton, Cash, and Brown (1990) reported that college males (mean age = 21.6, $SD = 6.4$) had a mean AES body image score of 3.41 ($SD =$

0.48). Possible explanations for such high body image perceptions will be explained in the section addressing the second component of the GOF model's third assumption.

As such, the rest of the discussion will surround the third assumption of the GOF model (Lerner et al., 1985, 1990, 1994), as well as the concept of value. As a quick review, Lerner and colleagues' third assumption stated that an individual would receive positive feedback from persons in a given context if he matches the context expectations. Conversely, one will receive negative feedback if a mismatch of the expectations occurs. Furthermore, if positive psychosocial adjustment is to occur, the individual's attributes would match the contextual demands and he or she would thus receive positive feedback from persons within the context. On the other hand, negative psychosocial adjustment would occur if the individual mismatches environmental expectations and receives negative feedback from persons within the context.

The first issue that will be discussed is whether the first element of the third assumption is supported (i.e., a match of expectations generates positive feedback from the context, and a mismatch of expectations yields negative feedback). The second issue will query whether the second component of the third assumption is supported (i.e., positive feedback produces positive psychosocial adjustment in terms of body image, and negative feedback yields negative psychosocial adjustment). Lastly, the impact of considering the concept of value on the GOF model will be examined.

Is the first component of the third assumption supported?

When considering the first element of the third assumption of the GOF model, the researchers expected to find that players who received positive feedback from both contexts would only belong to the congruency group who matched both context

expectations. Unexpectedly, however, the majority of participants (76.6%), regardless of congruency group, indicated they received positive feedback from both environments (refer to Table 1). Noteworthy is that two thirds of the participants who mismatched both of the context expectations still indicated that they received positive feedback from both contexts. This remarkable finding contradicts this basic tenet of the GOF model. This outcome seems to be unique to this study, as past research has indicated that those who mismatch context expectations receive negative feedback. As an example, East and colleagues (1992) found that adolescents with poor fit in terms of classroom demands and psychosocial competence received negative feedback from their teachers and experienced negative peer relations.

A possible explanation for the high representation in the positive/positive category may lie with the fact that the adolescent population sampled did not have many endomorphic participants. This was demonstrated with the large variation in sample size of the mesomorphs (n = 108) and endomorphs (n = 37) in this study. In fact, it was extremely difficult to find any more participants who had endomorphic body types. Perhaps because there may not be enough endomorphs to play all of the endomorphic positions at this age and level, coaches may accept mesomorphs who are effective in these positions, regardless if they mismatch the endomorphic expectation. Consequently, because the coaches chose the players specifically for these positions, players may receive positive feedback from the sporting environment. Future studies should explore this idea, as it merely speculative.

In terms of societal feedback, being involved in youth sport possibly may have allowed those who did have endomorphic body types to feel they received positive

feedback from this context. For example, Asçi et al. (1997) found that participation in sport had positive psychological effects on body image among adolescent male athletes, and also led to higher social acceptance among their peers. Furthermore, Holland and Andre (1994) determined that athletes receive greater social status than non-athletes in their study of high school and college students. Lastly, Murray (1976) also ascertained that adolescents gain greater acceptance from their peers when participating in sport. Conceivably, the participants in the current study also received greater peer acceptance, consequently receiving positive feedback from this part of the context. Experimental research, however, is needed to determine cause and effect regarding this issue.

With respect to the media component of society, research with reference to endomorphic body types receiving positive feedback in any manner has not been reported. A possible explanation as to why the endomorphic participants of the current study felt they received positive feedback from the media may lie with the context of football as covered by the media. Specifically, perhaps the media views the endomorphic body types required at the professional level positively. In turn, this potential positive coverage of endomorphs in professional football could have been the source of positive feedback for the current participants. As no studies were found to confirm or refute this possibility, research is needed to examine this matter.

A final aspect in terms of societal feedback involves the results regarding body type. Societal feedback scores were largely different between mesomorphic ($M = 7.03$, $SD = 1.20$) and endomorphic participants ($M = 6.10$, $SD = 1.02$, $d = .84$). These results were not surprising because research has shown that males are bombarded with the

mesomorphic ideal through the media (Davis et al., 1993; Drewnowski & Yee, 1987, Mishkind et al., 1986; Pope et al., 2000).

Is the second component of the third assumption supported?

In terms of the second aspect of the third assumption, the researchers expected that players who received positive feedback from both environments would have the highest body image scores, whereas those receiving negative feedback from both contexts would have the lowest body image scores. The results for the feedback scores by body image means (Table 3) indicated that participants who received positive feedback from both contexts had the highest body image scores ($M = 4.08$, $SD = 0.64$) as compared to the double negative feedback group ($M = 3.31$, $SD = 0.94$), which yielded a large effect ($d = 0.97$). The two remaining feedback groups, positive sport and negative society, and negative sport and positive society, yielded body image scores in between the former two groups ($M = 3.61$, $SD = 0.86$ $M = 3.87$, $SD = 0.64$, respectively). Comparing the positive/positive group with the other three groups combined yielded a medium effect ($d = 0.66$). Thus, these results support this tenet of the GOF model that argues that positive feedback from one's surrounding contexts should yield positive psychosocial adjustment.

Noteworthy, however, is that the mean body image score for the double negative group was comparable to the averages of previous studies conducted with similar populations. As mentioned previously, other researchers have reported average AES scores of 3.24 ($SD = 0.37$) (Daley & Hunter, 2001), and 3.41 ($SD = 0.48$) (Keeton et al., 1990). The results from these studies suggest that the third assumption of the GOF model in its entirety does not apply in these circumstances. More specifically, the double negative group still reported body image scores on par with the means of past research.

Combined with the fact that feedback scores did not follow Lerner et al.'s (1985) final assumption, this data challenges the GOF model. Past research using the GOF model has indicated that negative psychosocial adjustment occurs as a result of negative feedback (French et al., 1974; Jahoda, 1961); however, the majority of the participants in the current study felt they received positive feedback from both contexts. Thus, the GOF model cannot be applied under these circumstances.

There may be a number of factors that interact to explain why these results occurred. To begin with, the high body image scores may lie in the positive effects of youth sport participation with respect to body image. As mentioned, Asçi and colleagues (1997) found that youth sport participation yielded positive body image perceptions in adolescent males. Secondly, Wilkins et al. (1991) also reported that there were psychological benefits associated with sport involvement in terms of body image perceptions. Finally, Petrie (1996) determined that young males experienced positive psychological states such as security with their body shape as result of sport participation. Perhaps the participants in the current study yielded such high body image scores because the majority felt they received positive feedback from both contexts, regardless if they matched the expectations of either environment. More specifically, the positive feedback received may have produced the positive psychological states and benefits (as mentioned in the previous studies [Asçi et al.; Petrie; Wilkins et al.]) in terms of body image perceptions. Again, experimental research is needed to determine if positive feedback causes positive psychological states with respect to body image.

Another reason for such high body image scores could be the role that high school football plays in the popularity of adolescent boys. As previously mentioned, higher

social acceptance may also explain such high body image scores (Asçi et al., 1997; Holland & Andre, 1994; Murray, 1976). In addition to observing greater peer acceptance among adolescent athletes, Eppright et al. (1997) added that adolescents receive positive feedback from their peers when demonstrating strength and athletic success. As reported, the participants in the present study also received positive feedback from their peers, which may have accounted for their positive body image perceptions. We do not know, however, if the positive feedback received in this study is a direct result of sport participation. As mentioned, studies need to be conducted to determine if sport participation indeed causes positive peer feedback.

Lastly, feelings of physical effectiveness as a result of sport participation may explain such positive body image scores. Grant and Fodor (1986), McCabe et al. (2001), and Petrie (1996) all found that feeling effective in sport is positively correlated with positive feelings about the body, regardless of somatotype. Conceivably, the participants in this study felt they were effective in their roles on their teams, despite any negative feedback regarding somatotype, consequently yielding higher body image perceptions. Future research should concentrate on the reasons why participants might feel physically effective despite any negative feedback received.

Has the concept of value added to the model?

Beyond the issue of the impact of two contexts was questioning the role that valuing the context might play. More specifically, the researchers wished to determine whether the context that was of most importance to the participants had a greater influence on their body image perceptions than the context that was less valued.

What was most important to the researchers was determining body image perceptions of participants who received positive feedback from one context and negative feedback in the other, but who valued only sport or society. Recall that players who received positive feedback from sport but received negative feedback from society were expected to have high body image scores if sport were valued, but were expected to have low body image scores if society were valued. Furthermore, players who received negative feedback from the sport context and received positive feedback from society were expected to have low body image scores if sport were valued, but were expected to have high body image scores if society were valued.

Surprisingly, the highest body image mean with respect to these parameters was found in the positive/negative feedback group who valued society ($M = 3.72$, $SD = 0.60$, refer to Table 5). This data suggests that although participants are receiving negative feedback from their valued context (society), they still report relatively high body image scores.

The primary explanation of these findings may lie within the questionnaires that were administered to the participants. The questions regarding feedback and value only included non-football peers and the media as the primary persons for societal influences, but perhaps other influences may be more significant. In reality, there may be many more persons that affect the body image perceptions of these individuals, such as parents or siblings. For example, Rodriguez, Wigfield, and Eccles (2003) determined that family plays a large role in the belief systems of adolescents, specifically with respect to competency beliefs. Incorporating the literature on physical effectiveness and self-esteem allows us to connect Rodriguez et al.'s research to the high body image perceptions of the

participants in the current study; competency beliefs in terms of physical effectiveness and self-esteem regarding athletics may explain the high body image scores, as previous studies have found that these variables are associated with positive body image perceptions (Abell & Richards, 1996; Asçi et al., 1997; East et al., 1992; Lerner & Karabenick, 1974; Lerner et al., 1976).

Unfortunately, comparisons could not be made between the participants who valued sport and who received positive feedback from only society, as there were no participants who valued sport and felt they received negative feedback from sport and positive feedback from society. As such, the investigation into the "added" benefit of this value component was not possible. Had a larger sample been recruited, there may have been participants who filled these cells; thus, future studies should aim to enlist a much larger sample of participants.

With respect to value in general, the majority of participants (60 out of 145, or 41.4%) valued neither context (refer to Table 4). These results were quite unexpected initially; however, upon further consideration, this outcome may be explained by factors associated with the sample.

First, the age group that was investigated may explain the reason why the majority of participants did not value either context. More specifically, value systems seem to decline as children enter their secondary school years. For example, Wigfield, Eccles, Yoon, and colleagues (1997) found that the importance of athletics decreased longitudinally in their study of elementary and secondary school children over a three-year period. Also, children and adolescents were reported to demonstrate a decline in the value of various sporting activities as they grew older (Jacobs, Hyatt, Eccles, Osgood, &

Wigfield, in press). Furthermore, Rodriguez et al. (2003) found similar conclusions, as the analysis from their Latent Growth Model for perceived value of sports revealed that the importance of athletics decreases over time. As the participants in the current study were older than those studied by previous studies, perhaps the importance of sport has declined even further. Future studies should focus on the reasons why the value of athletics declines as children become adolescents.

A possible explanation for not valuing the sport context also could lie in the participants' competency beliefs. Competency beliefs in this context are considered as the beliefs one has about his respective sport ability in relation to other activities (athletic or otherwise) and in relation to other people (Rodriguez et al., 2003). Studies by Eccles, Wigfield, Harold, and Blumenfeld (1993), Jacobs et al. (in press), and Rodriguez and colleagues all reported that competency beliefs decrease over childhood and into the adolescent years. Furthermore, decreases in competency beliefs contribute to the decreasing value of athletics in this population, as found by Jacobs et al. and Rodriguez and colleagues. The participants in the present study may have devalued the sport context because of underlying negative competency beliefs. Recall that feedback questions were limited to body shape aspects. Therefore, despite receiving positive feedback about their bodies, participants may be receiving negative feedback with respect to sport performance, which consequently may have led to devaluing the sport. In the future, research in this area could also focus on determining whether negative feedback of sport performance leads to decreased competency beliefs.

Tying into the idea of competency beliefs is the concept of anxiety. Both Stuart (2003), and Wigfield and Eccles (1992) reported that anxiety about an achievement task

could decrease the value of that said task. Specifically, Stuart found that fear of embarrassment, injury or boredom had a negative effect on the value of sport in middle school-aged adolescents. It is quite possible that the participants in the present study felt anxious or incompetent concerning their abilities, and as a defensive mechanism, started to devalue the sport context regardless of matching expectations or receiving positive feedback about their body shapes. In addition to determining whether negative feedback of sport performance leads to decreased competency beliefs, future sport performance studies should include anxiety alongside competency belief research.

Moreover, significant others are believed to influence children and adolescent belief systems. More specifically, significant others' beliefs affect the value systems of children and adolescents. For example, Stuart (2003) found that parents, coaches, friends, teammates, and siblings all exert both positive and negative effects in terms of value. Negative effects included friends and family who did not value sport, as well as who provided no support or encouragement. Furthermore, conflicts with coaches seemed to decrease the value of the sport in question. The participants in the current study may have had these kinds of negative influence regarding athletics, especially if they received negative feedback from one or both contexts, which consequently may have caused them to devalue sport. Even if the participants received positive feedback from the sport context, it was still limited to comments about the body. Thus, it is important to further examine the various influences that may affect children and adolescent value systems regarding athletics.

With the respect to the media, on the other hand, participants may not have valued this part of the context for several reasons. First, Ricciardelli, McCabe, and Banfield

(2000) studied the role of the media regarding body image in adolescent boys, and found that boys who have high body image perceptions to begin with tend to ignore messages from the media whether they are positive or negative. Secondly, the authors reported that because of these positive views, feedback from the media had no effect on body image perceptions. Finally, Ricciardelli and colleagues found that half of the boys in their study did not view influences from the media as important. Clearly the participants in the present study did not value society as a context, which may have been due to initial high body image perceptions, as in Ricciardelli et al.'s study. If the participants in the current study initially had positive views of their bodies, then perhaps media influences have not yet affected them. Determining the reasons why this population does not view feedback from the media as important should be the focus of future research in this area.

A final aspect that emerged from the data involved societal value and body type. Societal value scores were slightly different for mesomorphs ($M = 5.57$, $SD = 2.01$) and endomorphs ($M = 4.69$, $SD = 1.97$, $d = 0.44$). Although both mesomorphic and endomorphic participants did not place much value on either context (both means were below 6), it is evident that the endomorphic participants valued society less than the mesomorphic participants. A plausible explanation for these results may be due to a protective buffering mechanism on the part of the endomorphs. Surprisingly, however, no studies were found to substantiate this idea. Future research should examine the concept of protective buffering with respect to body image and the ideals of society where endomorphic participants are concerned.

Limitations and Delimitations

It is important to mention that this research does have certain limitations. First, as with all self-report questionnaires, the question of social desirability is a factor. Specifically, the participants may have responded in such a way as to please the researcher. In others words, the participants may have answered according to what they thought the researcher wanted to see. Secondly, the pressure of answering questions in such a short period of time (i.e., 10-20 minutes) without proper reflection may not yield true results. Unfortunately, we may never know whether the participants were answering in truth or not, whether it be due to social desirability or to the length of time in which to report.

Another limitation of the current study is the sample size. As this research was part of a Masters degree and consequently involved time constraints related to data collection, it was not possible to recruit the required number of participants that was needed to conduct firm statistical analyses. More specifically, the large variation in somatotypes and subsequent groups associated with the GOF model made it impossible to conduct either parametric or non-parametric analyses. Furthermore, the population that was under study did not allow for a large number of endomorphs to be recruited.

Other limitations include that the modified version of the SIQ could not comprise all possible persons associated with society without being too lengthy. In other words, the SIQ only included non-football peers and the media as the primary persons for societal influences, and, as mentioned earlier, there may be many more persons that affect the body image perceptions of these individuals.

Delimitations of the current study consist of working solely with the GOF model and no other theoretical framework(s), as well as that the results only apply to male adolescent football players.

Future Research

Future research should focus on the reasons why adolescent males who participate in youth sport have such positive body image perceptions, as the explanations provided here are merely speculative. For example, research concerning peer acceptance and the media should be conducted to determine which has more influence over the body image perceptions of adolescent athletes. Moreover, research pertaining to negative feedback and physical effectiveness should be done, as the participants in the current study may have felt effective in their roles regardless of any negative feedback, which consequently led to positive view's of their bodies.

Further research using the GOF model in various populations and sporting environments should be conducted to determine if it might be supported in other situations. For instance, body image perceptions of male gymnasts with respect to the GOF model may be very different from those of football players. In addition, views of the body may be seen differently in more mature populations as compared to the age group of the present study.

Additional research on the impact of valuing different contexts should be investigated, as the results of the present study suggest that value may not add to the model. Specifically, the researchers encourage further examination of the various influences that may affect children and adolescent value systems with respect to body image and athletics. Furthermore, future studies should focus on the reasons why the

importance of athletics decreases throughout adolescence and seek clarification as to why young athletes do not view body image messages from the media as important. Lastly, future research should investigate body image, society's ideals, and the idea of protective buffering with respect to endomorphic individuals and the concept of value.

Finally, it is important to determine whether negative feedback of sport performance leads to anxiety and decreased competency beliefs. This is essential because it may be these factors that lead to devaluing sport.

Conclusions and Contributions

In sum, the use of GOF theoretical framework has allowed for a sound investigation of body image perceptions. Unique to this study was investigating the model using two different contexts. The GOF model's weakness with respect to these two contexts, however, lies with its third assumption. In terms of body image, male adolescent athletes do not always receive negative feedback from their surroundings, despite mismatching the stereotypes of each or both contexts. This suggests that examining two contexts does not allow for the prediction of psychological outcomes according to the GOF model. Therefore, on a theoretical level, the GOF model should be revised when considering two contexts. Furthermore, although it appears that this gender and age group did not allow the researchers to investigate the concept of value as an addition to the model, the importance of value in varied contexts may be useful in other populations. As such, the concept of value should be appended to the model when studying two or more contexts.

Practically, the findings of the current study are important because it indicates that there are indeed contexts that increase positive perceptions of the body, where society

alone could create negative views. It appears that youth sport is in fact one of these contexts. Parents and significant others should encourage their children to participate in athletics, as research has indicated that youth sport participation is positively correlated with positive psychological and physical benefits. At the same time, however, parents should be involved in their children's activities so that they can observe and rectify potential negative influences.

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APPENDIX A

Coaches Survey

Please indicate whether the following positions generally require mesomorphic body types (lean, muscular) or endomorphic body types (big, heavy-set). You may indicate that the position requires both types.

Position	*Mesomorphic*	*Endomorphic*
Defensive Line		
Defensive Linebackers		
Defensive Backs		
Offensive Linemen		
Receivers		
Backfield		
Quarterback		

Results

Position/Coach	**1**	**2**	**3**	**4**
Defensive Line	Endomorphic	Endomorphic	Endomorphic	Endomorphic
Defensive Linebackers	Mesomorphic	Both types	Mesomorphic	Mesomorphic
Defensive Backs	Mesomorphic	Mesomorphic	Mesomorphic	Mesomorphic
Offensive Linemen	Endomorphic	Endomorphic	Both types	Endomorphic
Receivers	Mesomorphic	Mesomorphic	Mesomorphic	Both types
Backfield	Mesomorphic	Mesomorphic	Mesomorphic	Mesomorphic
Quarterback	Mesomorphic	Mesomorphic	Mesomorphic	Mesomorphic

Position/Coach	**5**	**6**	**7**	**8**
Defensive Line	Endomorphic	Endomorphic	Endomorphic	Both types
Defensive Linebackers	Endomorphic	Endomorphic	Endomorphic	Endomorphic
Defensive Backs	Mesomorphic	Mesomorphic	Mesomorphic	Mesomorphic
Offensive Linemen	Endomorphic	Endomorphic	Endomorphic	Endomorphic
Receivers	Mesomorphic	Mesomorphic	Both types	Both types
Backfield	Both types	Both types	Both types	Both types
Quarterback	Mesomorphic	Mesomorphic	Mesomorphic	Mesomorphic

Position/Coach	9	10	11	12
Defensive Line	Both types	Both types	Both types	Both types
Defensive Linebackers	Mesomorphic	Mesomorphic	Mesomorphic	Mesomorphic
Defensive Backs	Mesomorphic	Mesomorphic	Mesomorphic	Mesomorphic
Offensive Linemen	Endomorphic	Endomorphic	Endomorphic	Endomorphic
Receivers	Both types	Both types	Both types	Both types
Backfield	Both types	Both types	Both types	Both types
Quarterback	Mesomorphic	Mesomorphic	Mesomorphic	Mesomorphic

Position/Coach	13	14	15	16
Defensive Line	Both types	Both types	Both types	Both types
Defensive Linebackers	Mesomorphic	Mesomorphic	Mesomorphic	Mesomorphic
Defensive Backs	Mesomorphic	Mesomorphic	Mesomorphic	Mesomorphic
Offensive Linemen	Endomorphic	Endomorphic	Endomorphic	Endomorphic
Receivers	Both types	Both types	Both types	Both types
Backfield	Both types	Both types	Both types	Both types
Quarterback	Mesomorphic	Mesomorphic	Mesomorphic	Mesomorphic

APPENDIX B

Verbal Recruitment

Hello, my name is Dana and I am a Masters student of the Faculty of Health Sciences at the University of Ottawa. I am investigating male body image for my research and would like to invite you to complete a number of questionnaires. Following this, I will ask you to step on a scale that measures percent body fat. After you receive the printout from the scale, I will ask you to place it in the envelope and return the entire package to me. Participation is voluntary. If you decide to participate in the study, please be completely honest, as returning the sealed envelope without identification will protect your anonymity.

APPENDIX C

Information Letter

Principal Investigator:

Dana Cross
MA Candidate in Human Kinetics
School of Human Kinetics
University of Ottawa
613-562-5800 ext.

Supervisor:

Dr. Diane Ste-Marie
Associate Professor
School of Human Kinetics
University of Ottawa
613-562-5800 ext.

Hello, this research is being conducted by a student at the University of Ottawa, Dana Cross, in partial fulfilment of her Masters of Arts in Human Kinetics. The purpose of the study is to test a theoretical framework entitled the Goodness-of-Fit (GOF) Model in the sport context with respect to body image.

Your participation will consist of completing four questionnaires in the following package (Visual Images Scales, Sociocultural Influences Questionnaire, Body-Self Relations Questionnaire-Appearance Evaluation Subscale, and a demographic questionnaire) and stepping on a scale that measures body composition. You will be asked a number of questions concerning male body image and feedback received from your coach, teammates, non-football friends, and the media. The contents will help to investigate the GOF model in two different contexts as well as the importance of value in each context, and your confidentiality will be respected. Confidentiality will be assured by returning the questionnaires, completed or not, to the researcher in a sealed envelope. Please note, incomplete questionnaires will not be used in the research project. It will take approximately 10 minutes for the entire process.

This activity deals with personal information and it may cause psychological discomfort. The researcher will make every effort to minimize this occurrence. You are free to withdraw from the project at any time, before or during completion of the questionnaires, refuse to participate or refuse to answer questions.

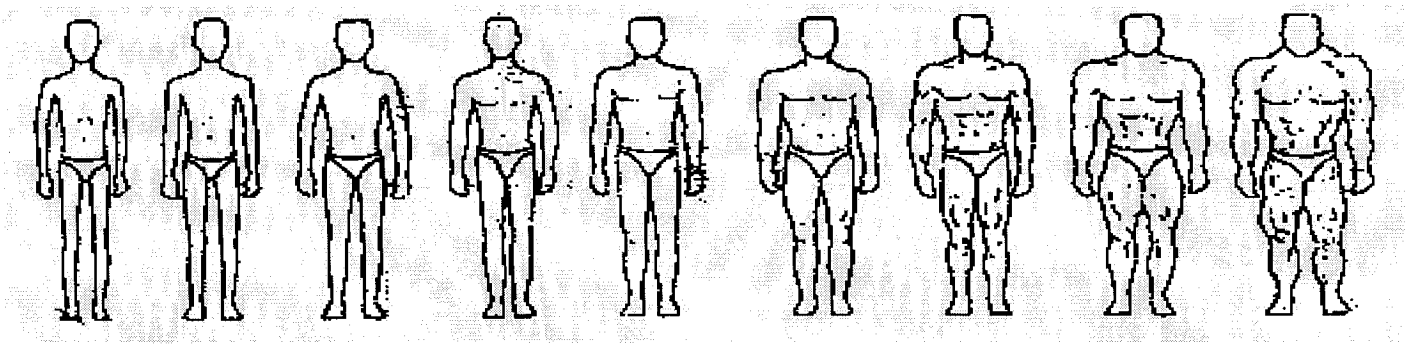
While potential psychological discomfort may result for you, it is important to note that this research is extremely beneficial in studying the GOF model in this context, and could help in the development of potential intervention programs to enhance goodness-of-fit in the sport context.

All of the information you will share will remain strictly confidential. Anonymity will be protected in the following manner: you will not write your name on the questionnaires or envelope, and the data from all participants will be pooled. The questionnaires will be kept in a locked filing cabinet accessible to only the principal investigator and her supervisor, and will be destroyed five years post publication.

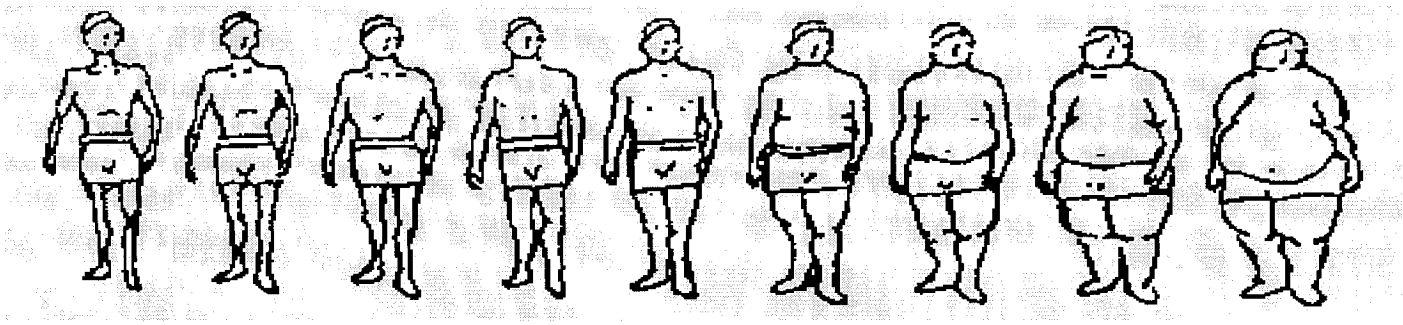
APPENDIX D

Visual Image Scales

Please circle an image on only **ONE** of the following scales that best represents your body shape. You may circle in between two images if you so choose.



Reprinted from Lynch, S. M., & Zellner, D. A. (1999).
Figure preferences in two generations of men: The use of figure drawings illustrating differences in muscle mass. *Sex Roles, 40,* 833-843.
Figures originally used in Winitch (1993) and drawn by Barbara Alexander.



Reprinted from Stunkard, A. J., Sorensen, T., & Schulsinger, F. (1983).
Use of the Danish adoption register for the study of obesity and thinness.
In S.S. Kety, L. P. Rowland, R. L. Sidman, & S. W. Matthysse (Eds.),
The Genetics of Neurological and Psychiatric Disorders
(pp. 115-120). New York: Raven Press.

APPENDIX E

The Sociocultural Influences Questionnaire

Sport Influences

Instructions: Using the scales below, please circle the statement that best describes how you feel regarding each question.

Type of Feedback (Comments) from Coach(es). Extremely positive means good comments, extremely negative means bad comments.

1. What type of feedback do you get from your coach(es) about the size or shape of your body?

extremely positive positive in between negative extremely negative no feedback

2. What type of feedback do you get from your coach(es) about your eating patterns to change your body size or shape?

extremely positive positive in between negative extremely negative no feedback

3. What type of feedback do you get from your coach(es) about your level of exercise to change your body size or shape?

extremely positive positive in between negative extremely negative no feedback

4. How important to you is what your coach(es) think(s) about the shape of your body?

extremely important fairly important in between fairly unimportant extremely unimportant

5. How important to you is what your coach(es) think(s) about your eating patterns to change your body size or shape?

extremely important fairly important in between fairly unimportant extremely unimportant

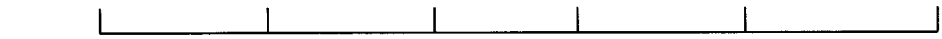
6. How important to you is what your coach(es) think(s) about your level of exercise to change your body size or shape?

extremely important fairly important in between fairly unimportant extremely unimportant

Type of Feedback (Comments) from Football peers (teammates). Extremely positive means good comments, extremely negative means bad comments.

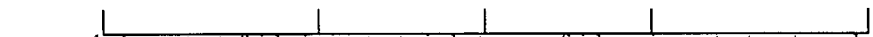
1. What type of feedback do you get from your football peers about the size or shape of your body?

2. What type of feedback do you get from your football peers about your eating patterns to change your body size or shape?



3. What type of feedback do you get from your football peers about your level of exercise to change your body size or shape?

4. How important to you is what your football peers think about the shape of your body?



5. How important to you is what your football peers think about your eating patterns to change your body size or shape?

6. How important to you is what your football peers think about your level of exercise to change your body size or shape?

Peer Influences

Type of Feedback (Comments) from Non-football peers. Extremely positive means good comments, extremely negative means bad comments.

1. What type of feedback do you get from your non-football peers about the size or shape of your body?

extremely positive | positive | in between | negative | extremely negative | no feedback

2. What type of feedback do you get from your non-football peers about your eating patterns to change your body size or shape?

extremely positive | positive | in between | negative | extremely negative | no feedback

3. What type of feedback do you get from your non-football peers about your level of exercise to change your body size or shape?

extremely positive | positive | in between | negative | extremely negative | no feedback

4. How important to you is what your non-football peers think about the shape of your body?

extremely important | fairly important | in between | fairly unimportant | extremely unimportant

5. How important to you is what your non-football peers think about your eating patterns to change your body size or shape?

extremely important | fairly important | in between | fairly unimportant | extremely unimportant

6. How important to you is what your non-football peers think about your level of exercise to change your body size or shape?

extremely important | fairly important | in between | fairly unimportant | extremely unimportant

Media Influences

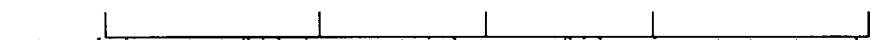
Type of Feedback (Comments) from the Media. Extremely positive means good comments, extremely negative means bad comments.

1. What type of feedback would you get from the media about the size or shape of your body?

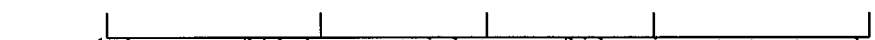
2. What type of feedback would you get from the media about your eating patterns to change your body size or shape?

3. What type of feedback would you get from the media about your level of exercise to change your body size or shape?

4. How important to you is what the media would think about the shape of your body?



5. How important to you is what the media would think about your eating patterns to change your body size or shape?



6. How important to you is what the media would think about your level of exercise to change your body size or shape?

APPENDIX F

BODY-SELF RELATIONS QUESTIONNAIRE:
APPEARANCE EVALUATION SUBSCALE

Instructions: Using the scale below, please circle the number that best matches your agreement with the following statements.

Definitely disagree 1	Mostly disagree 2	Neither agree nor disagree 3	Mostly agree 4	Definitely agree 5

1. My body is sexually appealing.	1	2	3	4	5
2. I like my looks just the way they are.	1	2	3	4	5
3. Most people would consider me good looking.	1	2	3	4	5
4. I like the way I look without my clothes.	1	2	3	4	5
5. I like the way my clothes fit me.	1	2	3	4	5
6. I dislike my physique	1	2	3	4	5
7. I'm physically unattractive.	1	2	3	4	5

APPENDIX G

Demographic Questionnaire

Position: _____

Height: _____

Weight: _____

Age: _____

Ethnicity: _____

Grade in School: _____

APPENDIX H

Ethics Approval

June 7, 2004

Dr. Diane Ste-Marie
School of Human Kinetics
University of Ottawa
125 Université
Room 366
Ottawa, ON K1N 6N5

Object: **Testing the Goodness-of-Fit Model: Male Body Image (file H 05-04-06)**

Dear Researcher,

You will find enclosed the Health Sciences and Science REB ethical clearance for the abovementioned research study.

Please note that it is the responsibility of the Researcher to:

a) Inform the ethics office of any changes in the research project; and
b) Fill out an annual status report to be sent to the Protocol Officer for Ethics in Research. Such report can be found on the ethics web site at: http://www.uottawa.ca/services/research/rge/rebs/download/rapport_annuel_projets_anglais.doc

A copy of this approval will be sent to Research Services, if necessary.

If you have any questions, you may contact me at extension

Sincerely yours,

Rita D'Alessandro
Protocol Officer for Ethics in Research
For Dr. Hugh French, Chair of the Health Sciences and Science REB

HEALTH SCIENCES AND SCIENCE RESEARCH ETHICS BOARD

CERTIFICATE OF ETHICAL APPROVAL

This is to certify that the University of Ottawa Health Sciences and Science Research Ethics Board has examined the application for ethical approval for the research project entitled **Testing the Goodness-of-Fit Model: Male Body Image (file H 05-04-06)** submitted by Diane Ste-Marie of the School of Human Kinetics, Faculty of Health Sciences. The Board found that this research project met appropriate ethical standards as outlined in the Tri-Council Policy Statement and in the Procedures of the University of Ottawa Research Ethics Boards, and accordingly gave it a Category 1a (approval). This certification is valid for one year from the date indicated below.

June 7, 2004
Date

Rita D'Alessandro
Protocol Officer for Ethics in Research
For Dr. Hugh French, Chair of the
Health Sciences and Science REB