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Exerciser Stereotypes of Female Weight Trainers

Celina Shirazipour
University of Windsor

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EXERCISER STEREOTYPES OF FEMALE WEIGHT TRAINERS

by

Celina H. Shirazipour

A Thesis
Submitted to the Faculty of Graduate Studies
through the Faculty of Human Kinetics
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University of Windsor

Windsor, Ontario, Canada
2012
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by

Celina H. Shirazipour

APPROVED BY:

Dr. D. Soulliere
Department of Sociology, Anthropology,
& Criminology

Dr. T. Loughead
Department of Kinesiology

Dr. K. Chandler, Advisor
Department of Kinesiology

Dr. S. Woodruff, Chair of Defense
Department of Kinesiology

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ABSTRACT

The purpose of the present study was to investigate the applicability of the exerciser stereotype in a female weight training population, in addition to the influence of gender and impression motivation on ratings of physical and personality characteristics. Two hundred and fifty one participants ($M_{age} = 19.94$) read a vignette describing one of four female weight trainer targets (typical, excessive, non-weight trainer, or control), then rated the target on physical and personality characteristics before completing items from the Self-Presentation in Exercise Questionnaire – modified for weight training (SPEQ-WT; Gammage, Munroe-Chandler, & Hall, 2005). Results indicated a significant main effect ($ps < .05$) for one personality, and four physical characteristics. However, participant gender and impression motivation did not influence ratings ($ps > .05$). The findings provide evidence of self-presentational advantages for female weight trainers, though future research should examine the influence of these significant characteristics on both weight trainers and observers.

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RESEARCH ARTICLE

Introduction

Self-presentation, also referred to as impression management, is characterized by attempts to portray an ideal or optimal self to others (Leary & Kowalski, 1990). In the exercise domain, this is manifested as motivation to participate in physical activity to improve or maintain physical appearance and health, or the desire to socially identify as an exerciser (Leary, 1992). The desire to self-present can be influenced by many factors including publicity, the value one places on the desired goal or image, the discrepancy between the desired and current image, and role constraints (Leary & Kowalski, 1990). Typically, however, the impressions people want to convey of themselves are in accordance with their own self-concept (Leary, 1992).

When considering impression management within the context of social interaction, a corresponding concept focusing on the evaluator of an image, impression formation, must also be examined. Research on impression formation focuses on the implications of an individual's attempts at impression management, and whether the impression management techniques were effective at influencing the observer forming the opinion (Martin Ginis, Lindwall, & Prapavessis, 2007). Researchers (e.g., Baron & Byrne, 1997) have identified three variables that can sway the impression formed of an individual; impression information (due to the interactive nature of impressions), central and peripheral traits (those traits that are either basic or secondary to an individual's personality), and preexisting beliefs and stereotypes. Indeed, individuals are biased towards applying a general stereotype to specific encounters, rather than evaluating each individual based on his or her own personal merits (Thorndike, 1920). Impression

formation also extends into the exercise domain, where it has been shown to have an effect on the way exercise habits are perceived (Martin, Sinden, & Fleming, 2000). When examining exercise habit information, a substantial amount of work has demonstrated the existence of a positive exerciser stereotype (Martin et al., 2000; Martin Ginis, Latimer, & Jung, 2003; Rodgers, Hall, Wilson, & Berry, 2009). Generally, people who are described as exercisers are rated more positively than those who are described as non-exercisers. This exerciser stereotype is evident through the positive physical, personality, and psychological attributions extended to those who participate in exercise activities (Hodgins, 1992; Martin Ginis et al., 2003; Rodgers et al., 2009). Indeed, research by Rodgers et al. (2009) demonstrated that those who participated in exercise, as well as non-exercisers, were both biased towards a positive exerciser stereotype. These two participant groups labeled the non-exercisers as less concerned with their health, less disciplined, and weaker than the exercisers (thus suggesting a non-exerciser stereotype). Similar results were found by Martin et al. (2000) who demonstrated that irrespective of the targets' gender, regular exercisers were rated more favourably than non-exercisers and, to some extent, controls on most attributes (e.g., attractiveness, self-confidence, self-control, happiness).

The concept of the positive exerciser stereotype can be extended to the impression formation construct of a halo effect, also known as the halo error (Thorndike, 1920). The halo effect refers to the cognitive bias that occurs when general positive impressions (e.g., good exercise habits) will influence the impressions formed of a specific individual and another trait (i.e., their personal physical and personality characteristics). Meanwhile, the non-exerciser stereotype, or devil effect (Thorndike, 1920), suggests that a general negative impression will negatively affect evaluations of a discrete trait. Therefore, when

forming an impression, individuals are biased to view a person in either a positive or negative fashion and to judge all characteristics by the valence of one general stereotype.

A factor that has been shown to have an effect on impression formation is the impression motivation of the participants. Lindwall and Martin Ginis (2010) found that the impression motivation of the participant moderated ratings for targets' physical attributes. For example, a participant who takes part in group yoga may rate someone who engages in the same type of fitness class more favourably than someone who engages in group cycling classes. This finding led Lindwall and Martin Ginis (2010) to conclude that when evaluating a target belonging to activity groups different from one's own, the perception of oneself as being a typical exerciser may be more important than actual exercise behaviour.

Furthermore, research (Martin Ginis & Leary, 2006; Shields, Brawley, & Martin Ginis, 2007) has emphasized the importance of the participant's gender in ratings of targets. When men and women were asked to rate a male exercise target or a non-exercising male control target on personality and physical characteristics, men rated the control target as significantly less fit than women (Shields et al., 2007). Similarly, Martin Ginis and Leary (2006) noted that when rating a female target, exercise status influenced female participants more than their male counterparts. As a result, men or women may manage the image they project by tailoring their activity to the observer, in addition to gender and social role expectations (Shields et al., 2007). The positive exerciser stereotype has been shown to extend to both men and women taking part in activities regardless of the gender stereotype of the activity (Drouin, Varga, & Gammage, 2008). Nevertheless, in terms of exerciser status, when comparing results from their two studies, Lindwall and Martin Ginis (2006, 2010) noted that female excessive exercisers were

judged more harshly than male excessive exercisers. This finding further suggests potential gender inequalities to the exerciser stereotype. Indeed, research shows that attributions may change as a result of gender when comparing stereotypes related to physiques (Ryckman, Robbins, Kaczor, & Gold, 1989).

The desire to positively self-present may influence one's exercise motivation and choice of physical activity (Hausenblas, Brewer, & Van Raalte, 2004). In 1997, Canadian statistics revealed that men participated in weight training significantly more than women with a 35% participation rate compared with women at 24% (CFLRI, 1997). In 2005, results showed a continued decrease with 14.3% of women taking part in weight training (Statistics Canada, 2005). One potential suggestion for women's low participation rates in weight training could be that the positive exerciser stereotype does not extend to female weight training populations, despite research supporting the stereotype extending to men who weight train. In one of the few studies examining the positive exerciser stereotype in exercise behavior beyond that of cardiovascular training, the typical weight trainer and the excessive weight trainer were more favourably perceived on personality and physical attributes than the non-weight trainer and the control targets (Kossert & Munroe-Chandler, 2008). However, participants' impression motivation had no effect on either rating of the targets. Findings related to the positive exerciser stereotypes and opposite-gender activities (Drouin et al., 2008) would suggest that Kossert and Munroe-Chandler's (2008) results extend to female weight trainers. Regardless, research on female body image and female muscularity provide a conflicting message.

In Western culture, the ideal body is presented as lean and toned with visible muscle for women (Gruber, 2007), and lean and muscular for men (Cafri, Yamamiya, Brannick, & Thompson, 2005; McCreary, Sasse, Saucier, & Dorsch, 2004). While there

has been an increase in the acceptable muscularity of women (Gruber, 2007), there is a cultural limit to the acceptance of this muscularity with high musculature characterized as unfeminine and unattractive (Grogan, Evans, Wright, & Hunter, 2004). This muscularity-femininity threshold has even been shown to extend to the sport of bodybuilding (Choi, 2003). The toned physique is idealized and sought after through weight training but the development of muscle bulk is avoided (Choi, 2003; Dworkin, 2001). As such, the maintenance of an individual's femininity is considered to be a serious concern and results in weight training exercises that would allow a woman to maintain curves and decrease rather than increase body size (Dworkin, 2001; Markula, 1995).

Research examining stereotypes related to female muscularity is largely concentrated in the field of bodybuilding. Freeman (1988) found that female bodybuilders were seen as more likely to perform masculine role behaviours, as less likely to be employed in a female occupation, to be relatively unattractive, to possess less socially desirable personality traits than attractive female non-bodybuilders, and to have less marital happiness than non-bodybuilders. The general findings from Freeman's (1988) study, which suggested that the physical outcomes of bodybuilding lead to a social disadvantage for women, have been replicated (Ryckman, Dill, Dyer, Sanborn, & Gold, 1992). Moreover, other research has suggested the possible moderating effect of exposure and gender on ratings of female bodybuilders (Franck, 1984), with male participants rating female bodybuilders' attractiveness higher than female participants, and exposure changing perceptions of the targets' dominance. Despite the social disadvantage of a female bodybuilding physique, a toned body achieved through muscularity is still a cultural ideal (Gruber, 2007). Adolescent girls have begun to seek greater muscularity and perceive similar pressure to pursue muscularity as boys (McCabe & Ricciardelli,

2005; Middleman, Vazquez, & DuRant, 1998). As such, evidence shows that perceptions of female muscularity have been evolving (Gruber, 2007) and it is possible that the results described in the female bodybuilder studies are no longer as drastic.

Due to conflicting results, the question remains as to the effects of the differing messages and societal impressions of muscularity, femininity, and tone on individuals' impressions and stereotypes of female muscularity. Therefore, the primary purpose of this study was to investigate the applicability of the exerciser stereotype in a female weight training population. A secondary purpose was to examine the effects of participant gender and impression motivation on the ratings. It was hypothesized that typical female weight trainers would be rated more favourably than the other targets (excessive weight training, non-weight training, and control) on personality and physical characteristics, as this target would most approximate the feminine ideal (Gruber, 2007). No a priori hypotheses were made regarding the relationships between the other targets due to a dearth of specific information in the literature regarding female weight trainers, as opposed to bodybuilders. In addition, it was hypothesized that participants' gender would influence the ratings, such that men would rate the female weight training targets more positively on personality and physical attributes than women (Franck, 1984; Martin Ginis & Leary, 2006; Shields et al., 2007). It was also hypothesized that impression motivation would influence participants' impressions of the positive exerciser stereotype (Lindwall & Martin Ginis, 2006, 2010).

Method

Participants

A total of 325 participants were recruited from the undergraduate population of a medium sized Canadian university, a total of 225 being necessary as per Gpower analysis

(Erdfelder, Faul, & Buchner, 1996). However, 74 participants were excluded due to incorrect completion of the study (three participants) or errors in the manipulation check (71 participants). Therefore, the final number of participants was 251 and consisted of both men ($n = 90$) and women ($n = 161$). The mean age of participants was 19.94 years ($SD = 3.02$).

Efforts were made to recruit outside of the Faculty of Human Kinetics in order to control for exercise or weight training bias. As such, the largest number of participants was recruited from the Faculty of Arts and Social Sciences (48.6%), with the second highest representation being from the Faculty of Nursing (24.3%) (see Table 1). The majority of participants declared themselves to be exercisers (81.3%), with the top form of exercise being cardiovascular exercise (55.8%) (see Table 2). Most (37.5%) did not indicate a second form of exercise (see Table 3). However, among those that did take part in two forms of exercise, the second form was noted by the majority to be weight training (29.1%). The participants exercised an average of 2.96 ($SD = 2.55$) days per week, for 48.93 minutes ($SD = 32.87$) each time. Among those that weight trained, they trained 1.20 ($SD = 1.63$) days per week, for 17.13 minutes ($SD = 23.79$) each workout. Most participants claimed to have never been exposed to female weight trainers (44.2%), with 39% noting rare exposure, 11.2% often, and 5.6% of female participants declaring themselves to be female weight trainers.

Measures

Demographics. Participants were asked to identify their age, gender, faculty, the top two forms of exercise in which they engage, including frequency and duration, as well as exposure to female weight trainers (e.g., never, rarely, often, identify as one) (see Appendix A).

Vignettes. Vignettes were adapted from those utilized by Martin Ginis et al. (2003), as well as Kossert and Munroe-Chandler (2008). Modifications were made with the target being named “Joan” to denote a female target, and cardiovascular information was removed from the vignette so as to solely provide relevant weight training details (see Appendix B). The typical weight trainer was presented as follows:

Joan is 20 years old, and is a second year student at a medium-sized university in Ontario. This semester she is taking courses in psychology, French, calculus, chemistry, and business. She has not yet decided on a major. Joan is of average height and average weight, with brown eyes and dark hair. In her spare time, she listens to music, reads, watches TV, and often gets together with her friends to go for a drink or to see a movie. *Joan also weight trains. She works out 3 – 5 times per week with free weights at moderate to hard intensity.* She is the oldest of three children and her parents are both schoolteachers. Last summer, she worked at a hardware store. Next summer, she hopes to tour Europe for a few weeks.

The vignette depicting the excessive weight trainer was identical to that of the typical weight trainer; however, the italicized sentences were replaced with “*Joan also weight trains. She works out 10-12 times per week using free weights at moderate to hard intensity.*” The non-weight trainer’s vignette replaced the italicized sentences with “*Joan does not participate in a weight training program*”. Meanwhile the control condition target did not contain any exercise information with the italicized section entirely deleted.

Rankings of personality and physical attributes. Participants randomly rated one of the four targets on 12 personality dimensions which are influenced by information relating to a target's body type (Ryckman et al., 1989; see Appendix C). These personality dimensions have also been shown to result in stereotypical responses (Lindwall & Martin Ginis, 2010). In addition, participants also rated targets on eight physical appearance dimensions, originally employed by Ryckman et al. (1989) when examining effects of physique on physical stereotypes, and further utilized by Martin Ginis et al. (2003). All dimensions were rated on a 9-point semantic differential rating scale reading, for example, 1 = *ugly*, 9 = *good looking* (Martin Ginis et al., 2003). Internal consistencies of the personality and physical dimensions were adequate with Cronbach's alphas of .77 and .82 (Nunnally & Bernstein, 1994), respectively.

Self-presentation. The Self-Presentation in Exercise Questionnaire (SPEQ; Conroy, Motl, & Hall, 2000) assesses impression motivation and impression construction in an exercise environment. Although the initial version contained 11 items, further research has demonstrated support for an 8-item version (Gammage et al., 2004). The 8-item version contains four items for each factor (impression motivation and impression construction) and has shown adequate internal reliability (Gammage et al., 2004). Items are rated on a 6-point Likert scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). Although conceptually distinct, it is difficult to separate impression motivation and construction in real world situations (Martin Ginis et al., 2007). As such, most research on exercise has focused on impression motivation (e.g., Lindwall & Martin Ginis, 2010) as the more influential variable when assessing participants' impression formation. Therefore, the present study assessed only impression motivation utilizing a 4-item SPEQ modified for weight training [SPEQ-WT; Gammage, Munroe-Chandler,

&Hall (2005)], (see Appendix D). A sample item reads, “I value the attention and praise of others when they regard me as having a muscular physique.” The Cronbach’s alpha for the impression motivation subscale was .79, which was deemed acceptable (Nunnally & Bernstein, 1994).

Manipulation check. Participants also completed a memory test, being asked to recall the name, age, and occupation of their assigned target (see Appendix E). As in Shields et al. (2007), the participants were also asked to note their understanding of the exercise habits of the target, as a typical weight trainer, excessive weight trainer, non-weight trainer, or none of the above.

Procedure

Participants were recruited from undergraduate classes at the University of Windsor. The researcher first contacted a professor teaching a course through e-mail about visiting his or her class to recruit participants (see Appendix G). Once permission was received, the researcher visited the class and posted a recruitment slide (see Appendix H) to introduce the study. After the study was introduced, the packages containing the questionnaire were distributed for consenting individuals to complete. Participants then had the option of filling out an entry ballot (see Appendix F) to win one of four mall gift certificates. Once the participants completed the questionnaires, the participants returned the whole package to the researcher, after which they were provided with the manipulation check questionnaire.

Participants were presented with one of four randomized vignettes with each vignette representing a female target with a different manipulated weight training routine. Only female targets were presented due to a desire to examine a female weight training stereotype, with research having already been conducted on male weight trainers (Kossert

& Munroe-Chandler, 2008). The three experimental condition vignettes described a typical weight trainer, an excessive weight trainer, and a non-weight trainer, respectively. A control was also included with no exercise or weight training information.

Analysis

Preliminary analyses consisted of ANOVAs and chi-squared tests of demographic information and manipulation checks across gender and experimental groups to determine if any differences existed. A median split was then used to create two groups: higher and lower impression motivation. Main analyses consisted of two 2 (higher and lower impression motivation) X 4 (typical weight trainer, excessive weight trainer, non-weight trainer, and control target) MANCOVAs (one for each set of characteristics), controlling for participant's exercise status and university faculty.

Results

Preliminary Analysis

The data were first analyzed for missing data. This analysis revealed that no variable was missing more than 3.6% of data. As this value was well within the 5% cutoff for missing data, no variables were excluded (Tabachnick & Fidell, 2007). The missing data were then analyzed using Little's MCAR test. Results of this test indicated that the data were missing completely at random ($p < .001$) and, therefore, the missing data were imputed. Mahalanobis and Cook's distances were then used to detect multivariate outliers (Tabachnick & Fidell, 2007). To preserve the robustness of the final sample (Barnett, 1978), a modified Winsorization was employed, replacing extreme cases by their nearest neighbours (Guttman & Smith, 1969). In total, six data cases had to be replaced among the control target data, eight data cases among the non-weight trainer group, ten from the

typical weight trainer group, and six from the excessive weight trainer target group. The data were then analyzed for other multivariate assumptions, meeting all criteria.

Demographic data were analyzed to ensure homogeneity across experimental groups. ANOVAs and chi-squared tests were conducted, revealing significant differences for exercise status ($p = .01$) and faculty ($p = .03$). As such, these two variables were controlled for in further analyses. There were, however, no significant differences in ratings of personality and physical attributes by male and female participants regardless of target type ($ps > .05$). As such, responses of male and female participants were analyzed together.

Results of an independent samples t-test indicated that there were significant differences between the higher and lower impression motivation groups ($p < .001$) on impression motivation. ANOVAs and chi-squared tests resulted in no significant differences in the manipulation check ($ps > .05$).

Main Analysis

A 2 (lower and higher impression motivation) X 4 (excessive weight trainer, typical weight trainer, non-weight trainer, and control) MANCOVA examined personality characteristics, with another 2 X 4 MANCOVA examining physical characteristic ratings. Bonferroni adjustments were used (Tabachnick & Fidell, 2007) for the follow-up ANCOVAs such that the 12 personality attributes were only significant at $p < .004$, and the 8 physical attributes were significant at $p < .006$.

Ratings of personality characteristics. A significant main effect emerged for target type, Pillai-Bartlett's trace $V = .23$, $F(36, 690) = 1.72$, $p = .02$, $\eta^2 = .08$. Follow-up univariate ANCOVAs demonstrated significant differences ($ps < .004$) on one of the twelve personality characteristics; *lazy-works hard* (*partial* $\eta^2 = .12$). Post hoc analyses

indicated that the participants rated non-weight trainers as lazier than the typical and excessive weight trainers ($p < .001$), as well as the control targets ($p = .04$). All means and standard deviations for personality characteristics are shown in Table 4.

The main effects for impression motivation and target status X impression motivation were not significant ($ps > .05$).

Ratings of physical characteristics. A significant main effect emerged for target type, Pillai-Bartlett's trace $V = .53$, $F(24, 702) = 6.29$, $p < .001$, $\eta^2 = .18$. Follow-up univariate ANCOVAs demonstrated significant differences ($ps < .006$) on four of the eight physical characteristics; *physically sickly-healthy* (*partial* $\eta^2 = .23$), *unfit-fit* (*partial* $\eta^2 = .39$), *physically weak-physically strong* (*partial* $\eta^2 = .39$), *scrawny-muscular* (*partial* $\eta^2 = .29$). Post hoc analyses indicated that the participants rated the female control and non-weight training targets as more physically sick, unfit, physically weak, and scrawny, than the typical and excessive exercisers ($ps < .05$). All means and standard deviations for physical characteristics are shown in Table 5.

The main effects for impression motivation and target status X impression motivation were not significant ($ps > .05$).

Discussion

Female muscularity is a concept that raises distinct questions and viewpoints, from concern over passing the threshold of tone to high musculature and muscle bulk (Choi, 2003; Dworkin & Wachs, 2009), to an understanding of the positive health benefits of a regular weight training program. An overwhelming number of studies point to the former viewpoint as being the main consideration of women in either scaling back or avoiding weight training workouts (Dworkin, 2001). This is potentially due to

impression formation and, thus, exerciser stereotypes in determining physical activity choices and methods (Hausenblas et al., 2004; Martin et al., 2000). While research has highlighted the presence of a positive exerciser stereotype for aerobic activities (Rodgers et al., 2009), and weight training in men (Kossert & Munroe-Chandler, 2008), there is a gap in the literature pertaining to stereotypes of female weight trainers. Indeed, the impressions formed on female musculature have only been examined within the realm of female bodybuilding, demonstrating the self-presentational disadvantages of the bodybuilding physique (Freeman, 1988; Ryckman et al., 1992). However, the relevance of these findings to female weight trainers, and different weight training habits, can be debated. Therefore, the purpose of the current study was to investigate the applicability of the exerciser stereotype to a female weight training population. While it was hypothesized that typical female weight trainers would be rated more favourably than the other targets on personality and physical characteristics, the results presented a different perspective.

Only one personality characteristic emerged as being significantly different among the various targets. This characteristic was *lazy-hard working*, with non-weight trainers rated as lazier than the control targets, as well as the harder working typical and excessive weight trainers. This characteristic (*lazy-hard working*) is more reflective of the act of weight training than any secondary characteristic that would transpire from being a weight trainer. The characteristic more likely reflects activity levels (being active reflecting hard work) rather than weight training itself. As a result, this difference would likely appear irrespective of the physical activity being described.

Although slightly more characteristics emerged as significant for the physical attributes, presenting evidence of a positive physical stereotype in weight training, a

similar pattern was observed with significant differences presenting for characteristics depicting the activity (fitness levels or muscularity) as opposed to secondary benefits such as attractiveness. The typical and excessive weight trainers were considered more physically healthy, fit, physically strong, and muscular than non-weight trainer and control targets. While the large number of positive physical stereotypes for female weight trainers (both typical and excessive) confirms results by Drouin et al. (2008) that taking part in an opposite-gendered stereotype activity would not alter the exerciser stereotype for physical characteristics, the extent of the stereotype transfer is questionable.

A comparison of the results of the current study to that conducted with male weight trainers (Kossert & Munroe-Chandler, 2008) demonstrates that, while they benefit from the positive exerciser stereotype, female weight trainers do not benefit as substantially from their weight training participation as men. While the same personality characteristic emerged for the male population (*lazy-hard working*), three others also appeared. Typical and excessive male weight trainers were also rated as having more friends, being more confident, and braver than non-weight trainer and control targets. Similarly, the physical characteristics that emerged for male participants included those seen for women but also incorporated sexual and physical attractiveness. The typical and excessive weight trainers were rated more sexually attractive (when rated by men and women), and more physically attractive (when rated by women) than control targets and non-weight trainers. In addition, the male weight training study saw control targets rated more positively on these physical characteristics than non-weight trainers. These stereotypical differences between the genders could potentially reflect differences in the ways that men and women weight train. Men would often be considered to be lifting heavier weights and thus be more likely to work out with other men (due to the need for

spotters), therefore contributing to an image of male weight trainers having more friends, being confident, or brave.

Given the other characteristics from which the female weight trainers could benefit, many of which were present for their male counterparts, the value that they may place on those that did surface needs to be determined. In fact, it may be the final goal of an individual that is important. Should a woman wish to self-present as healthy, then it would be advisable to weight train. However, should a women wish to self-present as an attractive, social individual, then there is no self-presentational benefit to weight training.

The second hypothesis of the current study was that participants' gender would influence the ratings, such that men would rate the female weight training targets more positively on personality and physical attributes than women. The current results did not support this hypothesis with no change in the ratings apparent between male and female participants. A potential explanation is the low weight training participation and low exposure rates to female weight trainers, which have been underlined as key aspects responsible for changes in participant gender ratings (Franck, 1984). Given Franck's (1984) research examined bodybuilders, one can speculate that not all impressions or results will extend to a population of weight trainers. Male bodybuilders were likely more sympathetic as they were more able to understand the intentions of female bodybuilders, as the goals of these two genders remained similar within the context of bodybuilding and both could be considered part of the same "in-group". However, in weight training, society places different expectations on the physical forms of men and women, as well as their activity levels. Thus, male weight trainers will not as readily identify with female weight trainers with whom they have less of a connection, labeling them as members of an "out-group". Indeed, the concept of an individual negatively rating others whom are

part of an “out-group” is given credence by further examination of the data which revealed trends indicating that those female participants who identified as female weight trainers often rated the non-weight trainer target more negatively on physical characteristics than those who did not identify themselves as female weight trainers.

The final hypothesis concerned impression motivation, such that impression motivation would influence participants’ impressions of the positive exerciser stereotypes. More specifically, those participants who were highly motivated to present themselves as weight trainers would rate the typical and excessive weight trainers more favourably than those lower in impression motivation. However, the results demonstrated that impression motivation did not influence participants’ ratings. This is surprising as research (Hilton & von Hippel, 1996) would suggest that individuals would rate those in their group or belonging to a group that they wish to claim membership more highly than an “out group” with which they do not identify. However, the findings are likely a result of low exercise participation, and especially low weight training involvement, among the participants, which meant that they were less likely to identify with the targets and the self-presentation items expressing impression motivation in weight training. Another potential explanation is that the characteristics present were not highly valued by those that ranked higher in impression motivation, and, as a result, the inclusion of other characteristics may have resulted in a significant interaction. Perhaps future studies could include other characteristics that are more highly valued for women in society, such as being toned or lean, as opposed to muscular. Finally, an examination of the studies where impression motivation was investigated as a variable demonstrate that significance was most often found in studies examining largely aerobic activities (Lindwall & Martin Ginis, 2006, 2010). However, in weight training, impression motivation has not yet been

a significant variable. Perhaps, researchers are beginning to demonstrate the differences between these two types of activities and the characteristics that are valued by individuals higher or lower in impression motivation.

The current study is not without its limitations. First, as noted earlier, the results were likely affected by the low weight training participation rates of the participants. Participant recruitment was guided by attempts to find participants who were not biased by previous knowledge on physical activity and weight training benefits. However, as such, the populations that would have demonstrated higher participation in weight training activities were not included. Future researchers could recruit individuals who frequent weight training facilities in their participant pool and note whether changes emerge in the results. A second limitation is that due to the nature of the semantic differential rating scale, participants were forced to rate an individual and are not given an option to note if they have not formed opinions of a certain characteristic, other than skipping that characteristic on the questionnaire. In the future, researchers could add an option (such as a box to check) that states that the participant has no opinion on that characteristic. A final limitation could be the usage of the name “Joan”, which may be considered old-fashioned and may create an image of a Caucasian individual. Therefore, research could benefit from using more neutral female target names. Indeed, future research should also control for differences in the culture and ethnicity of participants, which may bias approaches to exercise or weight training.

The findings of the current study also provide some other directions for future research. Qualitative research could determine the self-presentational importance that is placed on each of the personality and physical characteristics to monitor if those that emerged are influential enough for individuals to believe that they are benefitting from a

positive stereotype even though they are not associated with characteristics such as attractiveness or sociability. The positive exerciser stereotype has continuously based itself on a pervasive increase in beneficial stereotypes of those who exercise versus those individuals that are inactive. Women participating in aerobic based exercises can expect to be rated (among other benefits) as more attractive, having higher self-confidence, and increased happiness than non-exercisers or control targets (Martin et al., 2000). The fact that this unquestionable positive stereotype for an active individual was not found in the current study requires further investigation. The literature could also benefit from a study that directly compares a female target completing aerobic based exercises and one that weight trains.

Future research could further explain the current findings through qualitative study of participants' thoughts and reactions to these different individuals; however, presently one could presume a potential dislike for female weight training physiques (outside of a health context) or personalities to the extent that there is no overall significant benefit to any weight training individual as compared to an individual known not to weight train, or a control. Interesting possibilities could also arise if, upon reading the vignette and rating the target, participants were presented with silhouette contour drawings of female physiques of differing muscularity (Furnham et al., 1994) and asked to circle the physique that most resembles the target in their vignette, in addition to rating the different physiques. This would provide researchers with an understanding of the image being created by participants in response to the targets.

Researchers could also examine differences in the typical and excessive weight training vignettes. In the current vignettes, the sole change between the two targets was exercise frequency as opposed to the intensity, which remained at moderate to high.

Researchers could examine if ratings change as a result of alterations to weight training intensity as opposed to frequency. The literature could also benefit from examining how the general population defines typical or excessive weight training, as this definition may differ from physical activity guidelines which provided the basis for the vignettes in the current study. Finally, the current study focused on the use of free weights. However, different impressions could be formed based on terminology (strength training or resistance training), or the use of weight training machines or one's own body weight.

The current findings demonstrated the presence of a self-presentational benefit for weight trainers. However, physical benefits are more highly represented than personality benefits, underlining a health-related stereotype. Therefore, a woman working out to benefit from impressions based on sociability, attractiveness, and other personality characteristics, may choose to avoid weight training. This reaffirms literature on body image which highlights women's belief that they must "hold back" when weight training in order to maintain the ideal body and higher levels of attractiveness (Dworkin, 2001). Statistics indicate continuously low participation by women in weight training (CFLRI, 1997; Statistics Canada, 2005), and the current findings suggest that this is not due to a lack of understanding regarding its health benefits. Researchers must then look to interventions or applications that will work towards changing perceptions of weight training, so more women take part in this beneficial activity.

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Tables

Table 1

Percentage of Participants Represented by Faculty

Faculty	Percentage of participants
Arts and Social Sciences	48.6% (n = 122)
Nursing	24.3% (n = 61)
Science	10.4% (n = 26)
Odette School of Business	7.2% (n = 18)
Human Kinetics	4.0% (n = 10)
Undeclared	3.6 % (n = 9)
Education	1.6% (n = 4)
Engineering	0.4% (n = 1)

Table 2

Participants' Top Forms of Exercise

Exercise	Frequency
Cardiovascular	55.8% (n = 140)
None	17.5% (n = 44)
Weights	10.8% (n = 27)
Jogging/Running	5.6% (n = 12)
Swim	2.0% (n = 5)
Basketball	1.6% (n = 4)
Yoga	1.2% (n = 3)
Hockey	0.8% (n = 2)
Bike	0.8% (n = 2)
Horseback Riding	0.8% (n = 2)
Dance	0.8% (n = 2)
Walk	0.8% (n = 2)
Pilates	0.4% (n = 1)
Resistance/Strength Training	0.4% (n = 1)
Bootcamp	0.4% (n = 1)
Tae Kwon Do	0.4% (n = 1)

Table 3

Participants' Second Forms of Exercise

Exercise	Frequency	
None	37.5%	(n = 94)
Weights	29.1%	(n = 73)
Cardiovascular	9.2%	(n = 23)
Resistance Training	4.4%	(n = 11)
Abs/Core	3.2%	(n = 8)
Running	2.0%	(n = 5)
Swim	2.0%	(n = 5)
Circuit Training	1.6%	(n = 4)
Walk	1.6%	(n = 4)
Toning	1.2%	(n = 3)
Sports	1.2%	(n = 3)
Yoga	1.2%	(n = 3)
Plyometrics	0.8%	(n = 2)
Crossfit	0.8%	(n = 2)
Dance	0.8%	(n = 2)
Stretching	0.8%	(n = 2)
Bike	0.4%	(n = 1)
Baseball	0.4%	(n = 1)
Pilates	0.4%	(n = 1)
Kickboxing	0.4%	(n = 1)
Soccer	0.4%	(n = 1)
High Intensity Interval Training	0.4%	(n = 1)
Balance	0.4%	(n = 1)

Table 4

Mean Ratings of Personality Characteristics as a Function of Target Type

Personality Characteristic	Target Type			
	Excessive <i>n</i> = 51	Typical <i>n</i> = 75	Non-weight trainer <i>n</i> = 72	Control <i>n</i> = 53
Afraid-Brave	6.46 (1.14)	6.31 (1.34)	5.76 (1.21)	6.24 (1.56)
Lacks confidence-Confident	6.67 (1.63)	6.72 (1.74)	6.08 (1.41)	6.42 (1.64)
Lacks self-control- Has self-control	4.57 (2.19)	5.61 (2.73)	5.19 (1.74)	4.55 (2.00)
Dependent-Independent	6.61 (1.83)	6.40 (2.21)	6.13 (1.99)	6.03 (2.25)
Few friends-Many friends	6.55 (1.40)	6.73 (1.62)	6.49 (1.42)	6.79 (1.21)
Not friendly – Friendly	5.00 (2.08)	5.68 (2.41)	5.26 (2.21)	6.79 (1.21)
Lazy-Works hard	7.53 (1.60)	7.24 (2.06)	5.90 (1.76)	6.92 (1.66)
Mean-Kind	6.29 (1.24)	6.63 (1.62)	6.08 (1.96)	6.47 (1.94)
Sad – Happy	6.63 (1.13)	6.59 (1.84)	6.11 (1.74)	6.55 (1.73)
Sloppy-Neat	6.35 (1.09)	6.40 (1.64)	5.83 (1.63)	6.17 (1.63)
Unintelligent-Intelligent	7.02 (1.05)	6.98 (1.53)	6.93 (1.36)	7.13 (1.51)
Unsociable – Sociable	5.82 (2.08)	6.09 (2.61)	4.97 (2.24)	5.47 (2.49)

Note. Maximum rating value = 9. Higher scores indicate more positive trait attributions. Values enclosed in parentheses represent the standard deviations

Table 5

Mean Ratings of Physical Characteristics as a Function of Target Type

Personality	Target Type			
	Excessive <i>n</i> = 51	Typical <i>n</i> = 75	Non-weight trainer <i>n</i> = 72	Control <i>n</i> = 53
Physically sickly – Healthy	7.61 (1.10)	7.57 (1.81)	5.69 (1.64)	6.19 (1.74)
Has an unattractive physique - Has an attractive physique	5.63 (1.83)	5.72 (2.43)	5.14 (1.53)	5.42 (1.73)
Overweight – Underweight	4.88 (.65)	5.16 (.59)	5.03 (.65)	4.94 (.60)
Unfit – Fit	7.51 (1.45)	7.10 (1.85)	4.72 (1.26)	5.30 (1.46)
Physically weak – Physically strong	7.22 (1.38)	6.88 (1.72)	4.65 (1.14)	5.02 (1.39)
Ugly – Good Looking	6.25 (1.21)	6.22 (1.60)	5.85 (1.17)	5.79 (1.04)
Sexually Unattractive – Sexually attractive	6.10 (1.25)	5.99 (1.65)	5.64 (1.19)	5.75 (1.00)
Scrawny – Muscular	6.67 (1.28)	6.33 (1.56)	4.89 (.76)	5.15 (1.08)

Note. Maximum rating value = 9. Higher scores indicate more positive trait attributions. Values enclosed in parentheses represent the standard deviations.

REVIEW OF LITERATURE

Research in the domain of exercise and self-presentation has highlighted the presence of a positive exerciser stereotype (Martin, Sinden, & Fleming, 2000; Rodgers, Hall, Wilson, & Berry, 2009). While this construct is well defined, the limits of this stereotype have yet to be fully determined. The purpose of the present thesis is to examine whether the positive exerciser stereotype applied to male weight trainers extends to women who perform the same activity. More specifically, will the stereotype extend to all forms of female weight training from moderate to excessive? The review of literature will be divided into two parts (a) self-presentation, and (b) exerciser stereotypes.

Self-presentation

Self-presentation is an aspect of social interactions that is practiced by most individuals (Schlenker, 1980). While the term is often used interchangeably with the construct of impression management, Schlenker (1980) has distinguished between the two by defining impression management as “an attempt to control images that are projected in real or imagined social interactions” (p. 6), while self-presentation pertains to situations when those images are self-relevant. Though self-presentation includes an attempt to portray an ideal or optimal self to others, the majority of individuals do not deviate greatly from their actual self-concept (Leary & Kowalski, 1990).

In the exercise domain, self-presentation can result in motivation to participate in physical activity for reasons such as improving or maintaining one’s physical appearance and health, or the wish to identify socially as an exerciser (Leary, 1992). The desire to perform self-presentation can extend to the decisions an individual makes in his or her choice of physical activity. While the overarching decision is made based on enjoyment

and skill (Leary, 1992), those who wish to present certain images may be deterred from activities when taking into account social acceptance and beliefs about various physical activities and the resulting role conflict between their self-concept, and the associated stereotypes and gender beliefs (Jackson & Marsh, 1986; Leary, 1996). However, the significance of self-presentation on the way an individual may conduct his or her physical activity depends on the importance that is placed on the responses of others and the situation (Leary, 1992).

Impression management can also have negative influences for individuals with low self-efficacy in physical activity contexts, therefore fearing an inability to create a positive impression which is often referred to as social anxiety (Gammage, Martin Ginis, & Hall, 2004; Schlenker & Leary, 1982). It may also harm individuals who are anxious about others' evaluation of their appearance when performing physical activity, resulting in social physique anxiety (Hart, Leary, & Rejeski, 1989; Hausenblas, Brewer, & Van Raalte, 2004). In these situations, individuals may choose to increase exercise or avoid social physical activity situations (Lantz, Hardy, & Ainsworth, 1997; Martin, Leary, & O'Brien, 2001). Due to the high usage of impression management techniques, as well as the potential harm that can result from placing too much importance on this self-image (Leary, Tchividjian, & Kraxberger, 1994), researchers are attempting to understand its complexities.

Impression Formation

Within self-presentation there are two individuals involved in the exchange, the actor (the individual trying to create a positive image) and the observer (the individual forming the impression). While previous concepts have focused on impression

management or the individual wishing to self-present in a positive way, impression formation focuses on the observers or evaluators of the image being presented.

Impression formation is the process of using first impression information, central and peripheral traits (with the central traits potentially overshadowing the latter), and preexisting beliefs and stereotypes to create an impression of an individual (Baron & Byrne, 1997). The importance of first impression information, which may include changeable aspects such as clothing and posture, as well as fixed traits such as facial structure, is based on the primacy effect. Asch (1946) demonstrated that when reading a list of individual traits, participants are more influenced by the first information they read. Asch forwarded the hypothesis that impression formation does not result from adding traits together but from their interaction. Therefore, an understanding of one trait, such as “excessive exerciser” will then influence the meaning and interpretation of traits later considered.

Research in impression formation questions whether the characteristics of the observer moderate responses to image management techniques. It also questions whether individuals attribute self-presentational advantages to various actions or traits, such as exercise. Seminal research by Thorndike (1920) brought forth two concepts related to impression formation, the halo effect and the devil effect. The halo effect refers to the cognitive bias that occurs when general positive impressions (for example, good exercise habits) positively influence the impressions formed of other discrete traits (such as personality). Meanwhile, the devil effect suggests that a global negative impression (for example, a lack of exercise) will result in a negative evaluation of a discrete trait. Therefore, when forming an impression, individuals are biased towards applying a

general stereotype to specific encounters, rather than evaluating each individual based on his or her own personal merits (Thorndike, 1920).

A cognitive approach has been forwarded to further explain how impressions are formed and altered. This approach is based on two tenets: exemplars and abstractions (Baron, Byrne, & Watson, 1998; Smith & Zarate, 1992). Exemplars are concrete examples of behaviors consistent with a given trait that have been demonstrated by others. Meanwhile, abstractions are the mental summaries developed from repeated exposure to exemplars. Impressions, therefore, result from abstractions of behavior (see Figure 1). Impression formation is an important concept within self-presentation, however, the current models neglect the importance of the observer's situational factors or own self-presentational concerns on his or her evaluations.

Self-presentation and Body Image

Self-presentation and the desire to positively manage one's impressions can influence many behaviours including those related to the formation of an individual's body image (Leary et al., 1994). Body image is a multidimensional concept defined as "a person's perceptions, thoughts, and feelings about his or her body" (Grogan, 2008, p. 3). This body image is, however, often shaped by social pressures which lead individuals to desire a culturally ideal physique (Hausenblas & Fallon, 2006). The desire for the ideal body often drives physical activity motivation and participation (McDonald & Thompson, 1992). The Western ideal body is represented as lean and toned with visible muscle for women (Gruber, 2007), and lean and muscular for men (Cafri, Yamamiya, Brannick, & Thompson, 2005; McCreary, Sasse, Saucier, & Dorsch, 2004). For purposes

of the current study, it is important to understand body image, self-presentation, and impressions formed related to the ideal female physique.

While previously the ideal female body was simply thin, the rise of women's sports providing exposure to female muscularity may have contributed to a more muscular ideal physique (Gruber, 2007). However, both muscularity and thinness are seen as having their limits on the continuum of the desirable female body (Gruber, 2007). Indeed, high musculature can be considered unfeminine and unattractive, countering the Western ideal (Grogan, Evans, Wright, & Hunter, 2004; Gruber, 2007). Even within the sport of competitive bodybuilding, a high amount of muscularity is considered counterintuitive to an aesthetically pleasing female physique (Choi, 2003). The body shape of individuals can affect the way in which they are perceived by others (Ryckman, Robbins, Kaczor, & Gold, 1989) and, thus, individuals attempt to attain the ideal body type which would allow an individual to form a positive impression.

Muscularity is resisted and undesirable in women, and while women may engage in resistance training to attain a toned physique, the development of muscle bulk is avoided (Choi, 2003). Despite understanding the physical and health benefits of weight training, most women will restrict weight training in order to avoid too much muscle development, therefore operating within a "glass ceiling" on musculature (Dworkin, 2001). These individuals may attain their ideal body image through avoidance of resistance training, using lighter weights, or only lifting heavy weights within a certain number of repetitions and then holding back (Dworkin, 2001). Research has suggested that as opposed to being a fear of muscle, holding back is related to the ideal of a tiny body, and therefore size of any kind (be it fat or muscle) is to be avoided (Dworkin &

Wachs, 2009). When developing musculature, femininity remains a concern and results in strategic workouts that attempt to maintain curves and avoid an increase in body size (Dworkin, 2001; Markula, 1995). This issue with body size is becoming evident at younger ages (Grogan et al., 2004), with girls as young as eight fearing muscle as much as fat and viewing muscle as a masculine characteristic (Grogan & Wainwright, 1996).

Nevertheless, training for muscle in the form of a toned body is still culturally desirable. Adolescent girls feel pressured by society (McCabe & Ricciardelli, 2005) to improve muscle tone (Shomaker & Furman, 2010), and pursue greater muscularity as related to this increased muscle tone and decreased weight (Middleman, Vazquez, & DuRant, 1998; Ricciardelli & McCabe, 2001). Shomaker and Furman (2010), in an investigation of the pursuit of muscularity of those in late adolescence, found that both boys and girls received similar pressures to achieve muscularity from parents and friends. The effects of this pressure were not moderated by gender; therefore changing both late adolescent girls' and boys' pursuit of muscularity. In addition, there were some positive associations between satisfaction with physical appearance and the drive for muscularity, though this satisfaction was not related to preoccupation with muscularity and did not predict prospective changes in muscularity pursuits. Therefore, the desire to form a specific body image can be affected both by society and close interpersonal relationships.

An important consideration when evaluating individuals' responses to thinness and muscularity is the exercise status of the individual being questioned (Furnham, Titman, & Sleeman, 1994). Research by Furnham et al. (1994) determined that exercisers perceive thin female bodies more negatively, and muscles more positively, than a group of non-exercisers. Both groups of participants (exercisers and non-exercisers) rated an

anorexic female body shape negatively, and other extremely thin female body shapes as low in femininity, unattractive, unhealthy, and unnatural. However, a moderately thin, borderline anorexic shape was rated as significantly more positive by non-exercisers than exercisers, especially bodybuilders. Exercisers were more understanding of shapes that diverged from ideal female shapes. These differences may be related to exercisers viewing different bodies on a functional basis as related to the needs of their sport, as bodybuilders and other individuals whose sports required high musculature were consistently presenting higher ratings to muscular shapes. Due to conflicting results, the question remains as to the effects of the diverging messages and societal impressions of muscularity, femininity, and tone on women's body image and individuals' impressions and stereotypes of female muscularity.

Self-presentation Theories and Models

Several models and theories attempt to examine and understand the concept of self-presentation through its antecedents, factors, consequences, and other variables. Initial explanations were found in the literature pertaining to social facilitation and the presence of individuals during performance (Bond, 1982; Cottrell, Wack, Sekerak, & Rittle, 1968; Zajonc, 1965), while subsequent research has examined the various components of impression management itself and the process through which it develops (Leary & Kowalski, 1990). The models explored below provide insight into these methods and explanations.

Evaluation apprehension model. Presented in the domain of social facilitation, the evaluation apprehension model (Cottrell et al., 1968) was developed as a response to Zajonc's (1965) theory that the mere presence of others can have consequences on drive

response. The model expands upon the theory of social facilitation by including the importance of evaluation in creating an arousal or drive response. Based upon classical conditioning literature, the evaluation apprehension model posits that it is through continuous experience with evaluative others that one develops anticipation for these situations, resulting in the increased levels of arousal. The anticipation of evaluation can depend on learning from the prior evaluative experience of the individual (Geen, 1979) or on the context of the situation as having either high or low potential for evaluation (Carron, 1980). However, one must determine the effect of this arousal response on performance. While research in social facilitation suggests that this evaluative social group will improve performance (Zajonc, 1965), others have noted that one cannot determine the effects on arousal and the strength of the individual's response which may all be dependent on the task (Bond & Titus, 1983), leading one to question the applicability of the evaluation apprehension model. Nevertheless, the model and subsequent literature on the topic provide evidence for the salience of evaluation and the presence of others on the actions of an individual.

Self-presentation model. Bond (1982) chose to examine the concept of social facilitation through the lens of self-presentation, determining that social facilitation results from a form of active impression management to ensure a positive image. Research evaluating this theory (Bond, 1982; Bond & Titus, 1983) noted that the presence of another individual harms an individual's learning of easy tasks, but only if these tasks are considered to be a part of a difficult task. Indeed, when negative feedback is removed and participants perceive themselves as successful, the negative effects of an observer are nonexistent (Geen, 1979). Due to this model's focus on the presence of

others, it would be more useful in situations examining social physique anxiety, physical activity exertion, or learning contexts, as opposed to stereotypes determined irrespective of the presence of others.

The two component model. Leary and Kowalski (1990) sought to further examine the construct of impression management through the ways in which it develops. Impression management was thus broken down into two components or discrete processes; impression motivation and impression construction. Impression motivation was defined as “the degree to which people are motivated to control how others see them” (Leary & Kowalski, 1990, p. 34). Further, the situation and an individual’s disposition interact to determine the importance and attention placed on their image as relayed to others. This monitoring of an individual’s impressions can be placed along a continuum from a complete lack of observation to fully conscious attention.

Three factors determine the extent to which individuals are motivated to manage their image. The first is the goal-relevance of the impressions. More specifically, when the impression is necessary to achieve one of the desired results from self-presentation, which include improved social relations, self-esteem, and the development of a desired identity (Conroy, Motl, & Hall, 2000), then impression motivation is high. The importance of focusing on impression motivation when achieving a goal is determined by the number of individuals who might see the behaviour (publicity), and how dependent one is on others to achieve this goal. The second antecedent of impression motivation is the value of the desired goal. Impression motivation will increase if the outcome or goal is highly-valued (Beck, 1983). The value of the desired goal might also be affected by the importance or status of the individual who has the power to provide the goal (Gergen &

Taylor, 1969). The attributes or desires of this individual might also lead to the formation of a certain image over another (Leary & Kowalski, 1990). The final antecedent to impression motivation is the discrepancy between a desired and current image. One may desire to change the impression they feel others have of him or her if this image does seem to be within an acceptable range (Leary & Kowalski, 1990).

The second component of the two component model (Leary & Kowalski, 1990) is impression construction and follows after one has been sufficiently motivated to manage the impressions that others may have. The content of the image or impression being constructed is determined by one's self-concept, desired and undesired identity images, role constraints, the values of a target, and the current or potential social image. An individual's self-concept works to keep the image true to how an individual thinks about himself or herself or within a certain boundary. The desired and undesired identity images work to construct the image by determining how one wants to be seen and using this as a guide to developing an image. Role constraints determine how one should act when trying to construct an impression, while the values of a target may also determine how an individual may convey himself or herself. Finally, the current or potential social image examines how one believes their current image is being evaluated and how that may change in the future.

In sum, the two-component model determines that one must be somewhat aware of the public evaluation of the impression that one is presenting. After this, a succession of factors determines if this individual would want to change the image, continue trying to develop the same image, or stop presenting an image altogether. If it is decided that one would like to change the impression others hold of him or her, a new image is then

constructed depending on a series of important factors from the actual private self of the individual, to the public roles and behaviours required by the image or a target, and the way in which the impression may develop.

Measurement of Self-presentation in Exercise

Self-presentation in Exercise Questionnaire. The Self-presentation in Exercise Questionnaire (SPEQ; Conroy et al., 2000) was developed in response to the two-component model of impression management (Leary & Kowalski, 1990), as a means of assessing impression motivation and impression construction in exercise environments. Development consisted of two studies aimed at reducing the item pool to a concise number of items, as well as determining validity. Two final versions were presented. The first contained 11 items (corresponding to six items on impression construction and five on impression motivation), and the second contained 14 items, equally representing both components of the model. An example item from the 14 item questionnaire reflecting impression motivation is “I value the attention and praise of others when they regard me as being in good shape”, and an example of impression construction is “I emphasize my athletic ability around those who do not yet know that I am an ‘exercise nut’”. The items were rated on a 6-point Likert scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). The 11-item measure demonstrated adequate reliability for each component of the model with alphas of .83 (impression motivation) and .78 (impression construction). Meanwhile, the 14-item measure also demonstrated adequate reliability for each component of the model with alphas of .83 (impression motivation) and .81 (impression construction), with an overall scale reliability of .85.

Conroy and Motl (2003) then chose to conduct an additional specification search on the measure over concerns about items, to further cross-validate the items, and compare the measure across genders. Findings from this study resulted in a revised 9-item SPEQ assessing both constructs but with a more limited understanding of impression construction. In addition, consistency was found across both genders. Finding issues with the narrow focus on physical appearance on all versions of the SPEQ, researchers (Gammage, Hall et al., 2004) re-evaluated the 11-item SPEQ (Conroy et al., 2000) which resulted in a revised 8-item version containing an equal number of impression motivation and impression construction items. Although conceptually distinct, it is difficult to separate impression motivation and construction in real world situations (Martin Ginis, Lindwall, & Prapavessis, 2007). As such, most research on exercise has focused on impression motivation (e.g., Lindwall & Martin Ginis, 2010) as the more influential variable when assessing participants' impression formation.

An adapted version of the SPEQ, the Self-presentation in Exercise Questionnaire – Weight Lifting (SPEQ-WL; Gammage, Munroe-Chandler, & Hall, 2005) has been created for research regarding weight trainers. This modified version contains 11-items which show adequate internal consistency, with Cronbach's alphas of .85 (impression motivation) and .83 (impression construction) (Kossert & Munroe-Chandler, 2008). For purposes of the current thesis, a 4-item SPEQ-WT (weight training) focusing on impression motivation will be utilized. Examples of items in this modified measure are “I value the attention and praise of others when they regard me as having a muscular physique” (impression motivation).

Exerciser Stereotype

A stereotype is a “belief about the characteristics, attributes, and behaviors of members of certain groups” (Hilton & von Hippel, 1996, p. 240), which can arise from accurate mental representations of the reality to which an individual is exposed or from perceptions independent of actual group differences (Hilton & von Hippel, 1996). These stereotypes are context-dependent (Bodenhausen, Kramer, & Süsser, 1994; Hilton & von Hippel, 1996) and serve multiple functions, which may include improving information processing through a reliance on previously stored information (Macrae, Milne, & Bodenhausen, 1994), justifying different social roles (Eagly, 1995), or in response to a need for social identity (Hogg & Abrams, 1988) through the creation of an in or out group. They may be formed through self-fulfilling prophecies, the unconscious generalization of an individual to others in his or her group, illusory correlation of minority groups, or out-group homogeneity (Hilton & von Hippel, 1996). These beliefs may then be maintained through priming (or the effects of previous experience on perception), assimilation effects (the perception of an individual as being closer to a stereotype than reality), attributional processes (relying on behaviours that match the given stereotype), and memory processes which may affect situational interpretations (Hilton & von Hippel, 1996).

Stereotypes entered the domain of self-presentation with research by Dion, Berscheid, and Walster (1972) who advanced the theory that “what is beautiful is good”. Their study examined whether individuals have assigned personality traits to various levels of physical attractiveness in both men and women. Results showed that in addition to being presumed to have more socially desirable personalities, attractive individuals of

both genders were predicted to have a higher level of happiness in their lives than those individuals who were considered to be less attractive. As a result, an individual wishing to present a positive self-image may wish to identify with a positive stereotype such as attractiveness.

The Positive Exerciser Stereotype

Stereotypes have been shown to extend from social psychology to exercise psychology, affecting the ways individuals exercise, the physical activity choices that are made, and the perceptions others have of exercisers (Dworkin, 2001; Hodgins, 1992; Mack, 2003). Research has found that, irrespective of gender, exercisers are classified according to the larger stereotype of 'healthy body-healthy mind', detailing that those who are perceived as being physically fit are also thought of as maintaining a state of psychological well-being more so than unfit individuals (Hodgins, 1992). Indeed, many positive exerciser stereotypes become apparent when comparing exercisers with non-exercisers or less fit individuals. An understanding of this positive exerciser stereotype even extends to those who do not exhibit exercise behaviors. A comparison of beliefs about exercisers (Rodgers et al., 2009) showed that both exercisers and non-exercisers were biased towards an understanding of the exerciser stereotype, rating exercisers more positively on most characteristics. Non-exercisers were assigned labels such as less concerned about their health, weaker, and less disciplined than exercisers (Rodgers et al., 2009).

Martin et al. (2000) examined whether exercise habits affect the image formed of an individual. Male and female exercisers, non-exercisers, and control targets were rated on personality and appearance. It was found that, irrespective of gender, inactivity was

detrimental to one's image, such that regular exercisers were rated more favourably than non-exercisers and, to some extent, controls on most attributes. Exercisers were presumed to be more attractive, and as with previous research (Dion et al., 1972), the benefits extended to nonphysical attributions to exercisers such as increased self-confidence, greater self-control, increased happiness, and more friends than non-exercisers.

While a general positive exerciser stereotype does exist, it has been shown to have cultural limitations. Researchers (Martin Ginis, Latimer, & Jung, 2003) asked Canadian participants to rate excessive exercisers, exercisers, active living targets, non-exercisers, and a control target on personality and physical attributes. For personality attributes (such as kindness, number of friends, or confidence), the exerciser and active living targets were more highly rated compared to the other target groups. However, the typical exerciser, active living target, and excessive exerciser were rated more highly than the non-exerciser and control targets on physical attributes (such as physical strength, and muscularity). This stereotype was, therefore, shown to extend to different physical activity habits, and to exist regardless of the participants' own exercise status. However, the same study replicated in a Swedish population (Lindwall & Martin Ginis, 2006) found that the typical exerciser and active living targets were rated more favourably on all aspects, especially physical attributes. Meanwhile, the excessive exerciser obtained the least positive personality ratings (considered meaner, sadder, less confident, and more dependent than other targets), as opposed to the Canadian study which reserved those low ratings for the non-exerciser. In addition, unlike the Canadian study, the Swedish sample did not attribute any self-presentational advantages on variables linked to physical

attractiveness to the typical exerciser or active living target. Therefore, it seems that culture can alter the stereotypes associated with exercisers, as well as the images formed.

These results were again apparent when examining the exerciser stereotype in response to male targets (Lindwall & Martin Ginis, 2010). Swedish undergraduates rated the same targets (typical exercise, active living, excessive, non-exercise, and control) and it was found that all exercisers were rated more positively than non-exercise and control targets. However, the non-exerciser was rated less favourably than the control. The latter finding highlighted a previously defined concept, the non-exerciser stereotype (Martin Ginis & Leary, 2006), otherwise referred to as a devil effect (Thorndike, 1920), with global unfavourable perceptions of non-exercisers tainting discrete ratings of a specific individual. The excessive exerciser target was considered to be harder working but less sociable than the control, and was also rated as sadder, less self-confident, and less sociable than the typical exerciser. Therefore, contrary to North American culture, Swedish culture may associate excessive exercisers with negative images, therefore hindering self-presentational goals. Of note is that the self-presentational goals of the participants moderated the exercise status and rating relationship for physical attributes. Impression motivation was important for participants, leading Lindwall and Martin Ginis (2010) to conclude that when evaluating other individuals belonging to different activity groups, one's perception of oneself as being a typical exerciser may be more important than any actual exercise behavior. In comparing their results to their previous study (Lindwall & Martin Ginis, 2006), the researchers found that female excessive exercisers were judged more harshly than male excessive exercisers.

It has been suggested that the positive exerciser stereotype may even take precedence over negative stereotypes developed by being overweight (Martin Ginis & Leary, 2006). Research on a female target described either as an exerciser, non-exerciser, or control, and as underweight, average weight, or overweight, showed that body weight significantly interacted with exercise information in determining affective evaluations of physical appearance but not personality (Martin Ginis & Leary, 2006). Additionally, being underweight countered the negative non-exerciser stereotype. Therefore, the positive exerciser stereotype, negative non-exerciser stereotype, and body weight may interact in determining the images formed of an individual.

Exerciser Stereotypes and Gender

Leary (1992) suggested that the gender stereotypes of certain activities may be important in activity participation and when determining how to self-present. Research has thus considered the potential importance of gender in the formation of exerciser stereotypes. Mack (2003) researched the influence of exercise status on the formation of impressions on college students through a comparison of regular exercisers (defined as exercising four to five days per week) and non-exercisers. The results of previous studies (Dion et al., 1972; Martin et al., 2000) were confirmed when participants, asked to read a description of a target and rate the target's physical and personality attributes, rated exercisers more favorably on the majority of the physical and personality dimensions. However, unlike previous research (Dion et al., 1972; Hodgins, 1992; Martin et al., 2000), significant gender effects were evident. Women were rated more positively on the majority of personality attributes as compared to men. More specifically, female targets

were considered to be more hard working, independent, kinder, self-confident, neater, braver, happier, and possessing more self-control than male targets.

Activities are often characterized as gender-related when they match the ideal personality or physical attributes of that gender. For example, activities stereotyped as feminine (which may include aerobics, dance, and figure skating) are often characterized with appearance improvement, grace, or beauty, while male stereotyped activities (for example, motor sports, and boxing) are associated with characteristics such as power, strength, and aggression (Koivula, 2001). Drouin, Varga, and Gammage (2008) examined whether the positive exerciser stereotype existed when individuals were taking part in opposite-gender stereotyped activities. Results showed that the positive exerciser stereotype was present for both men and women performing gender-neutral or gender-appropriate activities. The physical characteristics of the positive exerciser stereotype were present regardless of the gender stereotype of the activity. The only personality difference was found for masculinity, with male targets rated as more masculine than females. The results appeared to indicate that exercise status and not type of exercise are influential on measures of self-presentation and impression formation of physical characteristics (Drouin et al., 2008).

The attribution of stereotypes may also alter by gender when comparing different physiques (Ryckman et al., 1989). Overall, individuals are more favourable towards mesomorphs (characterized as hard-working, clean, fast, attractive, and physically healthy) than endomorphs (viewed as lazy, sloppy, dirty, slow, physically unhealthy, and unattractive). When attributing personality traits, female mesomorphs are seen as more intelligent and neat than male mesomorphs, while the latter are viewed as having more

friends and being less likely to be teased than female mesomorphs. Alternatively, a lack of intelligence (defined as “the dumb jock” stereotype) is attributed more to male than female mesomorphs. In terms of endomorphs, men are seen as more sloppy and dirty than women. Female ectomorphs are viewed as more physically attractive and as having more friends than their male counterparts, while male ectomorphs are seen as more intelligent but more likely to be teased than female ectomorphs (Ryckman et al., 1989).

Exercise Stereotypes and Weight Training

One arena where gender-stereotyped activity may prove to divide men and women is weight training or body building. Weight trainers have an exerciser stereotype characterized by perceptions of bulk, intimidation, muscularity, and masculinity (Stolp, 2010). An examination of male weight trainers (Kossert & Munroe-Chandler, 2008) extended the positive exerciser stereotype from aerobics to weight training, with typical and excessive weight trainers being perceived more favourably than non-weight trainers and control targets on physical and personality characteristics such as sexual attractiveness, appearance, and happiness. However, research on social perceptions of female bodybuilders (Freeman, 1988) leaves an altogether different image. Regardless of gender, feedback on a stimulus person who participated in bodybuilding included that a female bodybuilder was more likely to perform masculine role behaviours and less likely to be employed in a female occupation. Female bodybuilders were considered to be relatively unattractive, and to possess less socially desirable personality traits than attractive female non-bodybuilders. These targets were also expected to have less marital happiness than both highly attractive and less attractive non-bodybuilders. In addition, female bodybuilders were more highly rated than less attractive non-bodybuilders in

terms of possessing more favourable personality traits, and likelihood of experiencing more occupational success and self-fulfillment. The overall conclusion was that the physical effects of bodybuilding would result in a social disadvantage for women (Freeman, 1988).

Much of this research was later replicated in an undergraduate population rating male and female bodybuilders and non-bodybuilders (Ryckman et al., 1992). It was found that bodybuilders of both genders were seen as having more masculine and less feminine personality characteristics than their non-bodybuilding counterparts. These male and female bodybuilders were also seen as possessing less socially desirable personality traits than the other non-bodybuilding targets. As with other research (Freeman, 1988), female bodybuilders were seen as more likely to engage in traditionally masculine behaviours than their non-muscular counterparts. In addition, attributions were made as to female bodybuilders romantic relationships as opposed to non-bodybuilders, including being less likely to require romance from their partners, more likely to control a partner's behaviour, and more likely to demand equality in relationships (Ryckman et al., 1992).

Other research has suggested possible exposure and gender effects as having an influence on ratings of female bodybuilders (Franck, 1984). It was determined that female bodybuilders were rated as more attractive by men than women. In addition, increased exposure of male participants to female bodybuilders increased attractiveness ratings and also changed perceptions of the bodybuilder's dominance. Men with low exposure to female bodybuilders rated them as less dominant than their female counterparts, while men with high exposure to the targets rated them as more dominant than women with high exposure to this group. The current thesis may take direction from

past research; however, as an examination of weight training rather than weight lifting or bodybuilding, one cannot expect the same stereotypes or attributions to manifest in response to this group of exercisers. Acceptance of female muscularity has grown, with female weight training in the United States increasing by 134% from 1990 to 1999 (SGMA International, 2001 as cited in Gruber, 2007). Nevertheless, Canadian statistics demonstrate this participation as still being low with only 24% of Canadian adult women engaging in weight training activities (CFLRI, 1997). In 2005, results showed a continued decrease with 14.3% of women taking part in weight training (Statistics Canada, 2005). In addition, 10-14 year old adolescent girls have also begun exercising for the purpose of muscle gain (McVey, Tweed, & Blackmore, 2005). Therefore, due to changing perceptions of female muscularity and weight training (Gruber, 2007), it is essential to reexamine the results of Franck (1984), Freeman (1988), and Ryckman et al. (1992) in a weight training context.

Measurement of Exerciser Stereotypes

Exerciser stereotypes are often measured through the presentation of photographs of stimulus persons (Dion et al., 1972; Freeman, 1988) or vignettes describing targets (Hodgins, 1992; Kossert & Munroe-Chandler, 2008; Martin Ginis, Latimer et al., 2003). After receiving this information, participants rank the targets or stimulus persons on physical appearance, personality, or both.

Participants rate the targets on physical appearance dimensions. Eight commonly included physical appearance dimensions are ugly/good looking, sexually unattractive/sexually attractive, underweight/overweight, scrawny/muscular, physically sickly/healthy, has an attractive figure/has an unattractive figure, unfit/fit, and physically

weak/physically strong (Martin et al., 2000). These dimensions are rated on a 9-point semantic differential rating scale reading, for example, 1 = *ugly*, 9 = *good looking* (Martin et al., 2000; Ryckman et al., 1989).

Participants rate the targets on a number of personality dimensions including dependent/independent, friendly/not friendly, lazy/works hard, sloppy/neat, and mean/kind (Drouin et al., 2008; Mack, 2003). As with physical appearance ratings, the personality dimensions are rated on a 9-point semantic differential rating scale reading, for example, 1 = *dependent*, 9 = *independent* (Lindwall & Martin Ginis, 2010).

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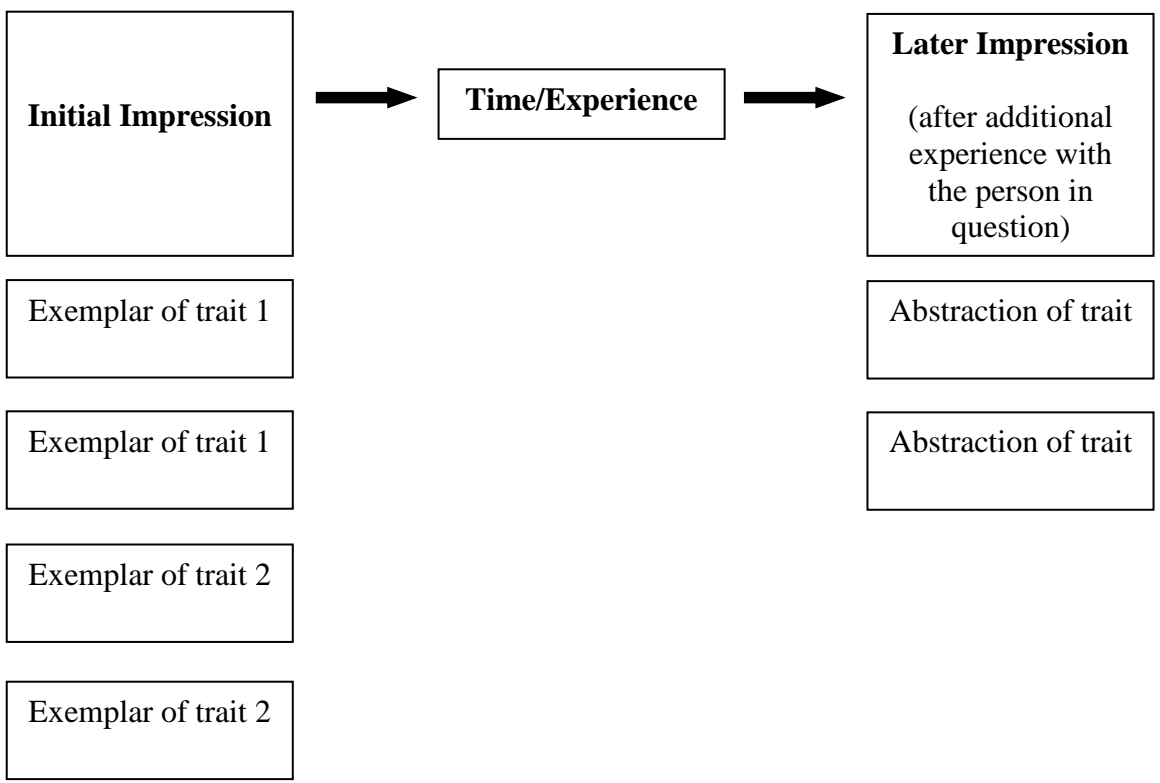
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Figure Captions

Figure 1. Impressions of Others: How They Develop

FIGURES

Figure 1



Adapted from "Social Perception and Social Cognition," by R. A. Baron, D. Byrne, and G. Watson (Eds.), *Exploring social psychology* (2nd Canadian ed.), 1998, Scarborough, ON: Prentice-Hall Canada Inc., p. 51.

APPENDICES

APPENDIX A



Demographic Information

Age: _____

Gender: _____

University Faculty: _____

Weight training is a form of exercise utilized to increase strength and/or muscle size. It differs from weight lifting and bodybuilding in that these latter two involve strength training for competitive rather than recreational purposes.

Taking into account the above weight training definition, please complete the following question.

Do you exercise? (please circle one) YES NO

If you exercise, please list your top two form(s) of exercise (e.g. cardiovascular, weight training, etc.):

1) _____

2) _____

I exercise _____ days per week.

Every time I exercise, I exercise for approximately _____ minutes

How often are you exposed to female weight trainers:

never rarely often I am a female weight trainer (please circle one)

If you weight train, please answer the following two questions.

I train with weights _____ days per week.

In each weight training session, I train for approximately _____ minutes.

APPENDIX B

Vignettes

Typical weight trainer

Joan is 20 years old, and is a second year student at a medium-sized university in Ontario. This semester she is taking courses in psychology, French, calculus, chemistry, and business. She has not yet decided on a major. Joan is of average height and average weight, with brown eyes and dark hair. In her spare time, she listens to music, reads, watches TV, and often gets together with her friends to go for a drink or to see a movie. Joan also weight trains. She works out 3 – 5 per week with free weights ranging from moderate to hard intensity. She is the oldest of three children and her parents are both schoolteachers. Last summer, she worked at a hardware store. Next summer, she hopes to tour Europe for a few weeks.

Excessive weight trainer

Joan is 20 years old, and is a second year student at a medium-sized university in Ontario. This semester she is taking courses in psychology, French, calculus, chemistry, and business. She has not yet decided on a major. Joan is of average height and average weight, with brown eyes and dark hair. In her spare time, she listens to music, reads, watches TV, and often gets together with her friends to go for a drink or to see a movie. Joan also weight trains. She works out 10-12 times per week using free weights ranging from moderate to hard intensity. She is the oldest of three children and her parents are both schoolteachers. Last summer, she worked at a hardware store. Next summer, she hopes to tour Europe for a few weeks.

Non-weight trainer

Joan is 20 years old, and is a second year student at a medium-sized university in Ontario. This semester she is taking courses in psychology, French, calculus, chemistry, and business. She has not yet decided on a major. Joan is of average height and average weight, with brown eyes and dark hair. In her spare time, she listens to music, reads, watches TV, and often gets together with her friends to go for a drink or to see a movie. Joan does not participate in a weight training program. She is the oldest of three children and her parents are both schoolteachers. Last summer, she worked at a hardware store. Next summer, she hopes to tour Europe for a few weeks.

Control

Joan is 20 years old, and is a second year student at a medium-sized university in Ontario. This semester she is taking courses in psychology, French, calculus, chemistry, and business. She has not yet decided on a major. Joan is of average height and average weight, with brown eyes and dark hair. In her spare time, she listens to music, reads, watches TV, and often gets together with her friends to go for a drink or to see a movie. She is the oldest of three children and her parents are both schoolteachers. Last summer, she worked at a hardware store. Next summer, she hopes to tour Europe for a few weeks.

APPENDIX C

Ratings of Physical and Personality Attributes
 (Adapted from Martin, Sinden, & Fleming, 2000)

Please circle the number that you believe best describes Joan on the following attributes:

Afraid	1	2	3	4	5	6	7	8	9	Brave
Lacks Confidence	1	2	3	4	5	6	7	8	9	Confident
Has self-control	1	2	3	4	5	6	7	8	9	Lacks self-control
Dependent	1	2	3	4	5	6	7	8	9	Independent
Few friends	1	2	3	4	5	6	7	8	9	Many friends
Friendly	1	2	3	4	5	6	7	8	9	Not friendly
Lazy	1	2	3	4	5	6	7	8	9	Works hard
Mean	1	2	3	4	5	6	7	8	9	Kind
Sad	1	2	3	4	5	6	7	8	9	Happy
Sloppy	1	2	3	4	5	6	7	8	9	Neat
Unintelligent	1	2	3	4	5	6	7	8	9	Unintelligent
Sociable	1	2	3	4	5	6	7	8	9	Unsociable
Physically sick	1	2	3	4	5	6	7	8	9	Healthy
Has an attractive physique	1	2	3	4	5	6	7	8	9	Has an unattractive physique
Underweight	1	2	3	4	5	6	7	8	9	Overweight
Unfit	1	2	3	4	5	6	7	8	9	Fit
Physically weak	1	2	3	4	5	6	7	8	9	Physically strong
Ugly	1	2	3	4	5	6	7	8	9	Good looking
Sexually unattractive	1	2	3	4	5	6	7	8	9	Sexually attractive
Scrawny	1	2	3	4	5	6	7	8	9	Muscular

APPENDIX D

Modified Self-Presentation in Exercise Questionnaire – Weight Training
(Adapted from Conroy et al., 2000)

Please circle the number for each statement below, which most accurately and honestly describes your beliefs.

1. I value the attention and praise of others when they regard me as having a muscular physique.

1	2	3	4	5	6
strongly disagree					strongly agree

2. I enjoy the praise I often receive for weight training.

1	2	3	4	5	6
strongly disagree					strongly agree

3. I try to appear toned and muscular to others.

1	2	3	4	5	6
strongly disagree					strongly agree

4. Appearing physically strong and muscular to others is not important to me.

1	2	3	4	5	6
strongly disagree					strongly agree

APPENDIX E

Manipulation Check

To the best of your abilities, please answer the following questions regarding the story that you read earlier. To enhance your memory, you may want to close your eyes and envision the image you created of the individual.

- a) The character described in the story was named _____.
- b) The character described in the story was _____ years old.
- c) Last summer, the character described in the story worked at _____.
- d) Would you describe the character as: (please choose one response)
 - a. a typical weight trainer
 - b. an excessive weight trainer
 - c. a non-weight trainer
 - d. none of the above

APPENDIX F

Ballot Entry for Gift Certificate

Name: _____

E-mail address: _____

APPENDIX G

Professor Contact Letter

Dear [*insert professor's name*],

My name is Celina Shirazipour and I am a Masters student in Human Kinetics at the University of Windsor, studying under the supervision of Dr. Krista Chandler

For my thesis, I am investigating perceptions of weight trainers. The results obtained from this study will contribute to existing literature on exercise perceptions, as well an applied understanding of the self-presentational outcomes of weight training activities for females.

With your permission, I would appreciate visiting a lecture of [*insert name of class*] to recruit participants from amongst your students, and have consenting students complete the questionnaires. I will remain in the class during this process to answer any questions and collect all completed questionnaires. The entire process should take no longer than 20 minutes, during which I would request that you step out of the class to reassure participant confidentiality. In addition, please note that this study has received REB clearance from the University of Windsor.

Thank you for your understanding. For more information, I have attached a letter of permission. If you are willing to have me visit your class or have any questions, please contact me via e-mail [redacted] or phone [redacted].

Thank you,

Celina Shirazipour

Masters Student in Human Kinetics
Department of Kinesiology
University of Windsor
401 Sunset Ave.
Windsor, ON. N9B-3P4

APPENDIX H

Recruitment Slide

PERCEPTIONS OF WEIGHT TRAINERS

Please take 15 minutes to fill out a
questionnaire packet

Chance to win one of four \$50 gift
certificates to Devonshire Mall

Thank you for your time!

Celina Shirazipour, M.H.K. Candidate

Ethics clearance has been received from the University of Windsor

VITA AUCTORIS

NAME: Celina Hove Shirazipour

PLACE OF BIRTH: Calgary, Alberta, Canada

YEAR OF BIRTH: 1988

EDUCATION: University of Windsor, Windsor, Ontario
2010-2012, M.H.K.

McGill University, Montreal, Quebec
2006-2009, B.A.

Strathcona-Tweedsmuir School,
Okotoks, Alberta
2003-2006