

INVESTIGATING THE INFLUENCE OF MEDIA ON MALE BODY IMAGE:  
IN SEARCH OF A POTENTIAL MODERATOR

A Senior Honor's Thesis

by

JOSEPH MIGNOGNA

Submitted to the Office of Honors Programs & Academic Scholarships  
Texas A&M University  
in partial fulfillment of the requirements of

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April 2004

Major: Psychology

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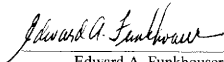
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## ABSTRACT

Investigating the Influence of Media on Male Body Image:

In Search of a Potential Moderator. (April 2004)

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The primary objective of this study was to examine the effect of media exposure on male body image. The experimental manipulation involved exposing participants to slideshows which depicted either images of lean/muscular male bodies, thin male bodies, average male bodies, or athletic apparel. Other objectives were to examine if attitudes towards muscularity moderate this experimentally induced acute body dissatisfaction, if it in fact existed, as well as to examine the validity and sensitivity (sensitivity to body image size in terms of fatness and muscularity) of the dependent measures employed. There were no significant differences in the amounts of body dissatisfaction seen across each of the four slideshows. Results did however support the use of all three of the body image assessment measures (Body Image Assessment, BIA; Body Morph Assessment, BMA; and Somatomorphic Matrix, SM) in measuring various aspects of male body image. The BIA and BMA were mainly sensitive to measuring “thinness/fatness” and not muscularity, whereas the SM was capable of measuring both. Although none of the three body image assessment measures were sensitive to detecting the attempted

manipulation of media's effect of acute body dissatisfaction, this may be due to a weak manipulation resulting from attempts to control for the facial attraction and race/ethnicity of the males featured in the advertisements.

## DEDICATION

For my parents, Joe and Theresa Mignogna

## ACKNOWLEDGMENTS

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## INTRODUCTION

From magazines to television, the massive media force steadily influences its viewers in many ways. One such influence is manifested through the power of the media in contributing to body image dissatisfaction in both males and females (Agliata & Tantleff-Dunn, 2004; Botta, 2003; Durkin & Paxton, 2002; Groesz, Levine, & Murnen, 2002; Harrison, 2003; Kalodner, 1997; Leit, Gray, & Pope, 2002; Murnen, Smolak, Mills, & Good, 2003; Ricciardelli, McCabe, & Banfield, 2000). The current study was an attempt to specifically examine possible media effects on male body image, and to identify which males are adversely affected.

### *The Evolving Ideal Female Body*

Women portrayed in the media display a female body that is steadily becoming thinner. Garner, Garfinkel, Schwartz, and Thompson (1980) described this thinning trend in examination of Miss America Pageant contestants and *Playboy* magazine centerfolds from 1959 to 1978. Wiseman, Gray, Mosimann, and Ahren (1992), in a follow-up study saw this thinning trend continue with these same two populations from 1979 to 1988.

Recent research has keyed us into the proportions of this thinning ideal female seen in the media. Voracek and Fisher (2002) examined the body characteristic trends of *Playboy* centerfolds from 1953 to 2001. The anthropometric measurement data collected not only support the thinning trend described, but also expands on it by noting

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that the model's body measurements now depicted a more androgynous female body type. The centerfold's bust and hip sizes had decreased, and their waist sizes had increased over time. This finding is clearly in contrast to widely held claims that female centerfold bodies resemble a more "hourglass" figure, as their research findings lead to the claim "that the maximally sexually attractive female waist:hip ratio is stable" (p. 1448). Wiseman et al. (1992) found that also concurrently increasing alongside the thinning female body type mentioned (from 1959 to 1988) was the prevalence of magazine articles relating to weight loss and "diet-for-weight-loss" in six predominately female-read magazines. Research such as this raises the question of whether the media can induce acute body dissatisfaction in females.

#### *Media Effects on Female Body Image*

Harrison (2003) found when surveying females, exposure to ideal body images on the television significantly predicted the participants idealization of medium sized breast, a smaller waist, and smaller hips. Due to the plethora of experimental research available, a meta-analytic review of experimental manipulations of body image (e.g., participants viewing media portraying the thin female ideal in an experiment), Groesz et al. (2002) came to a general conclusion that body image became significantly more negative when viewing the female ideal in comparison to viewing models of average size, models of plus size, or inanimate objects.

Female body image dissatisfaction can often lead to a number of behavioral changes that are of health concerns for women engaging in such practices. Murnen et al. (2003) examined the responses of elementary age girls to objectified pictures of famous

female singers epitomizing a sexy, thin ideal; and the responses of elementary age boys to objectified pictures that featured male models that epitomized the male ideal (strong and muscular). When the children were prompted the question, "What could you do to look like them?" boys responded more often with non-superficial methods of change (i.e., working out more), whereas a high percentage of girls responded with more superficial methods of change (i.e., buying new clothes to wear). However among the girls that indicated non-superficial changes (such as working out more), responses included such detrimental actions as starvation, purging, and plastic surgery. Furthermore, it was noted that the demand characteristics of the pictures viewed could have influenced the female participant toward responses of superficial changes (i.e., ideal body image females were viewed in skimpy clothing), thus indicating the type of change method implored by females could have be different than the superficial method suggested. Moreover, Harrison's (2003) study found that exposure to television images of the ideal female body was positively correlated with the female approval of liposuction, breast surgery, and the use of a special bra (to increase the appearance of bust size). The media's influence on female body image is considerable. Considerations of potential behaviors and means by which females could engage in striving to achieve the thinning female viewed in the media are cause for great concern. Similarly, male body image should also raise concerns.

#### *The Evolving Ideal Male Body*

As can be readily seen in the media, the male body ideal is evolving as well. One obvious area of this transformation is in today's modern male action figures. Pope et al.

(1999) found that over the past 30 years, human male action figures are consistently far more muscular in comparison to their predecessors. In their study, popular action toys biceps, waists, and chest circumferences were measured, and then scaled to a life size height. Many of the male toy figures are seemingly extra-human, with physiques bearing levels of muscularity that have only been attained by the most advanced bodybuilders.

Media's presentation of an evolving male body ideal is not limited to children's toys, as this trend can also be seen in *Playgirl* centerfolds. From 1973 to 1997, the bodies of male centerfolds have become increasingly muscular, along with a marked decrease in body fatness (Leit, Pope, Gray, 2001). This evolving male physique in the magazines is further evidenced by a study that examined *Sports Illustrated*, *GQ*, and *Rolling Stone* magazines from 1967 to 1997 (Law & Labre, 2002). Law and Labre (2002) findings suggest that the male figures in these magazines became more muscular, lean, and V-shaped (a narrow waist which increases as it approaches a wide muscular chest) during the three decades examined. Their research found that V-shape and leanness appeared to peak during the 1980s; while although such features decreased in the 1990s, muscularity during the 1990s was seen at its highest level. Kolbe and Albanese (1996) examined some of these same, as well as other similar male magazines for the year of 1993, and described the images advertised as "clearly objectified and depersonalized" (p. 14). Their research found that the males seen in print are "not ordinary, average guys," but rather "have the physique of the traditional male icon—strong and muscular" (p. 17). Gross (1985) reported that even men's fashion followed

this muscular trend when the cut for shirts, trousers, and suits was altered by clothing manufacturers to accentuate and accommodate more muscular and lean male physiques.

#### *Male Body Image Dissatisfaction*

Fallon and Rozin (1985) suggested that female college students tend to display a greater degree of dissatisfaction with the appearance of their bodies than do male college students. This study, however, came under criticism by Jacobi and Cash (1994) who found that both male and female participants internalized ideals that differed from the physiques they possessed. They argued that measurement of body image in males needs to reflect the appearance concerns of males (e.g., muscularity), as opposed to the size/thinness concerns that are much more common in females. They note that the discrepancy between their findings and those of Fallon and Rozin (1985) was likely due to the latter having neglected to study the direction of the current-ideal discrepancy; instead, they only examined the absolute magnitude of the discrepancy. The fact that 91 percent of the male participants in this study aspired to attain a heavier, taller, and more muscular body avers to their argument. Substantiating this claim, Pope, Gruber, Mangweth, Bureau, deCol, Jouvent, and Hudson (2000) found that males residing in a modern Western society (e.g., Austria, United States, and France) idealized a body that was approximately 27 pounds more muscular than how they perceived their own bodies. This body image was measured with the Somatomorphic Matrix (SM; Gruber, Pope, Borowiecki, & Cohane, 2000), a body image measure that assesses muscularity in addition to body fat. Male's displaying dissatisfaction with their bodies is further supported by Mishkind, Rodin, Silnerstein, and Stiegel-Moore's (1986) findings that 95

percent of the college-age males surveyed expressed discontent with selected aspects of their figure. Examining the direction of body image discrepancy becomes evident when looking at Harmatz, Gronendyke, and Thomas (1985) conclusion that underweight males have a quite negative view of themselves. It was reported that underweight males viewed themselves as being less attractive, less sexually appealing, and having less of a good nature than what another participant rated them to be. Specifically, it was found that males have a strong bias toward a larger chest size (Thompson & Tantleff, 1992).

#### *Assessment of Male Body Image*

In a recent review of current male body image measures, Cafri and Thompson (2004) established three general guidelines to be used in judging a male body image measurement's efficacy. The first and most important is that, a muscular appearance must be evaluated. The second guideline is that, if the measure contains questions which are indirectly associated toward one's body appearance, those questions must be in relation to muscularity. Third, the upper torso must be included in the measure. From their review, Cafri and Thompson (2004), found the Somatomorphic Matrix (SM ; Gruber et al., 2000) to be one of the most effective male body image measures to date. Although their review does mention a few criticisms of the Somatomorphic Matrix, such as having low test/retest reliability, Cafri and Thompson's commend its capabilities of a double "facet" capability to measure both body fat and muscularity concerns of appearance. Also evaluated in this review is the efficacy of silhouette scales, which are criticized for many different times excluding the muscularity dimension, as well as, for their "coarseness" in assessment methods of discrete response options (p. 23). Male

body image must center on what is of most concern for males in their appearance, muscularity. Furthermore, increasing the use of body image measurements similar to the Somatomorphic Matrix (SM; Gruber et al., 2000) should result in more accurate male body image measurements (Cafri & Thompson, 2004).

#### *Media's Effect on Male Body Image*

The proposed diagnostic criteria for Body Dysmorphia, although it is not yet a formal diagnosis, are centered on the concept of preoccupation with thoughts that one's body is not lean or muscular enough (Pope, Phillips, & Olivardia, 2001). A laboratory experiment was conducted by Leit et al. (2002), examining the effects of media exposure on males' body dissatisfaction as a possible cause for muscle dysmorphia. In this experiment, one group of college males observed slides of advertisements displaying muscular men, whereas the group of control males' observed neutral advertisements. Immediately following the observation of these slides, participants completed the Somatomorphic Matrix (SM; Gruber et al., 2000). Results revealed a significantly greater discrepancy between the levels of muscularity of their identified current and ideal body figures for the participants exposed to the slides of muscular men. More recently, Agliata and Tantleff-Dunn (2004) supported these claims in similar research. One hundred and fifty-eight males viewed television advertisements that contained inserted segments of ideal males or neutral images into a program on television. Like the Leit et al. (2002) study, their findings indicated that the participants who were exposed to the ideal male segments became much more depressed along with a higher



degree of muscle dissatisfaction than their counterparts who viewed advertisements not related to appearance.

Ricciardelli et al. (2000) found that adolescent boys (aged 12-15) they interviewed, viewed social comparisons and the media to be instrumental in encouraging more exercise from them. Even though both of the influences mentioned were viewed by the boys as causing a positive body image effect, both influences were seen to have led them to change the size and shape of their bodies. Moreover, in surveying almost 400 high schools in the Midwest United States, Botta (2003) found that it is as a result of reading magazines claiming to be for health purposes that many adolescent males engage in body changing behaviors (p. 396). Reading for the male participants was linked with increased muscularity, which means that these males intended to use or have taken supplements and pills for the purpose of gaining weight and were committed toward having a muscular body.

#### *Study Objectives and Hypotheses*

The first specific goal of this project was to attempt to replicate the findings of Leit et al., (2002) and Agliata and Tantleff-Dunn (2004), that is, to experimentally study the effect of media exposure on male body image. However, the study expanded on these two experiments in three important ways. First, the manipulation included not only exposure to images depicting muscularity, but also extreme thinness (analogous to what has been studied with women). It was predicted that only exposure to muscular media would affect men's body image. Second, using the Swansea Muscularity Attitudes Questionnaire (SMAQ; Edwards & Launder, 1999), we examined whether

either of its two factors (Drive for Muscularity, DFM; & Positive Attributes of Muscularity, PAM) moderates the relationship between media and male body image dissatisfaction. Specifically, this measurement was used to predict which participants will respond most negative toward their body image. Third, we used a variety of measures of male body image in order to speak to the validity of each. These dependent measures include: the Body Image Assessment (BIA; Williamson, Davis, Bennett, Goreczny, & Gleaves, 1989) (a figural rating scale), the Somatomorphic Matrix (SM; Gruber, et al., 2000), and the Body Morph Assessment (BMA; Stewart, Williamson, & Allen, 2001). Specifically, it was predicted that effects of media exposure will only be seen on those measures that measure muscularity (i.e., the Somatomorphic Matrix).

Given that two of the body image measures vary along a single dimension of nonspecific size (i.e., the BIA and BMA) and one that varies along the two dimensions of muscularity and body fat (i.e., the SM), this study further examined possible differences in levels of dissatisfaction, i.e., current-ideal discrepancies, resultant each measure. This objective has implications for the methodology used in studying male body image.

## METHOD

### *Participants*

Participants were 126 males recruited from introductory psychology courses at a large public southwestern university. Research credit was given to be counted towards completion of their Introductory Psychology course requirement. The sample's reported racial/ethnic composition was: 86.5% Caucasian, 3.6% African American, 4.8% Hispanic, 3.2% Asian, and 1.6% of the participants identified as being "Other." The mean age of the participants was 19.01 years ( $SD = 2.48$ ). The mean body mass index (BMI  $\text{kg/m}^2$ ) was 24.35 ( $SD = 3.99$ ).

### *Materials and Measures*

*Stimulus images.* Images used in each of the four group's slideshows were selected from pictures and advertisements found on the internet and sports-related magazines, and from which, were placed into one of the four groups. These groups were: lean/muscular male body type advertisements, thin male body type advertisements, average size male body type advertisements, or advertisements of sports apparel (i.e., shorts). All images containing human advertisement were judged by five male psychology graduate students in a manipulation check. They were instructed (see Appendix A) to place a scrambled group of 113 images of male bodies into one of four groups. Based on 100% agreement of the five judges that 16 images belonged in the lean/muscular male body type, 100% agreement that 20 images belonged in the thin male body type group, and 100% agreement that 9 images and 80% agreement of 6 more images belonged in the average body type male advertisements; 15 images total were

selected to be placed in each group's respective slideshow. Images were manipulated using a common computer art software program to cover each male's face with a white circle, and to control for race/ethnicity by making the tint of each male's skin indistinguishable.

*Figure-rating measures.* The Somatomorphic Matrix (SM ; Gruber, et al., 2000) is a computer administered measure consisting of a 10 x 10 matrix used to represent 10 degrees each of body fatness and muscularity, resulting in a matrix of 100 figures that vary along dimensions of body fatness (quantified by body fat percentage, BF%) and muscularity (quantified by a Fat-free mass index, FFMI). The FFMI measures overall muscularity through the use of an equation developed by Kouri, Pope, Katz, and Oliva (1995) that is computed from the weight, height, and the percentage of body fat of the figure depicted on the computer screen. Participants were asked (after practicing how to adjust the muscularity and body fatness of the figure) to identify the bodies that most closely approximate their current, ideal, and attractive (to females) bodies (see Appendix G). By clicking one of four buttons located to the sides of the male figure displayed, the participant could manipulated the muscularity and body fatness incremental degrees until the participant felt the figure most closely approximated their answer to the prompting question. The difference between the selected current and ideal body figures was used as an index of body dissatisfaction.

The Body Image Assessment (BIA; Williamson et al., 1989) was another figural rating scale used during this experiment. However, this is a paper and pencil administered measure. Participants were requested to identify one of nine male body

silhouettes that most closely approximated their current body, their ideal body, and the figure they believe would be most attractive to females. These silhouettes range from very skinny to very obese along a nonspecific size dimension (see Appendix I). The difference between the selected current and ideal body figures was used as an index of body dissatisfaction.

The Body Morph Assessment (BMA; Stewart, Williamson, Smeets, & Greenway, 2000) is a computer-administered assessment of male and female body image. An image is generated that can be manipulated to look extremely thin, on one end of a nonspecific-size continuum, to morbidly obese at the other. After the participant views and actively participates in an instructional portion of the assessment, the color of the instructional window on the screen changes from white to either blue, red, or yellow as it asks the participant to identify the figure they feel best represents their current, ideal, and acceptable over a long period of time body size types (see Appendix J). Each body image selection was asked four times before it allowed the participant to move on to answer the next question. These four trials are averaged together to form one current, one ideal, and one acceptable body type BMI mean. The difference between the selected current and ideal body figures was used as an index of body dissatisfaction.

*Affective measures.* The Affective Body Satisfaction (ABS; Brown, 2002) addresses 13 body areas or aspects that have been shown to be areas of concern for males and females, on which respondents rated how satisfied they were with each area or aspect using a seven-point Likert scale (see Appendix H). The body areas or aspects assessed included: shoulders, biceps (front of upper arm), overall body build,

chest/breasts, back, triceps (back of upper arm), lower legs (calves), muscle tone, stomach/abdominals, upper legs (quadriceps and hamstrings), overall body fatness (amount of fat on body), weight, and overall muscle mass (amount of muscle on body). The possible responses to each area or aspect are as follows: 1 = Very Dissatisfied; 2 = Mostly Dissatisfied; 3 = Somewhat Dissatisfied; 4 = Neutral/Indifferent; 5 = Somewhat Satisfied; 6 = Mostly Satisfied; and 7 = Very Satisfied. This measure is scored into three Factors. Factor 1 contains questions relating to one's assessment of their "General Body Composition," Factor 2 contains questions relating to one's assessment of their "Upper Torso," and Factor 3 contains questions relating to one's assessment of their "Legs" (see Table 1).

*Attitudinal measures.* The Swansea Muscularity Attitudes Questionnaire (SMAQ; Edwards & Launder, 1999) is a 20-item paper and pencil measure of attitudes towards muscularity (see Appendix E). It contains two subscales, Drive for Muscularity (DFM) and the Positive Attitudes of Muscularity (PAM). The DFM subscale is associated with one's desire for greater muscularity, as well as, to an individual's engagement in increased muscularity goal-specific activities. The PAM subscale is associated with the benefits of being muscular are perceived to bequeath. These benefits include feelings of masculinity, heightened confidence, and increased attractiveness.

*Behavioral measures.* The Diet and Exercise Behavior Questionnaire (DEBQ) is an 11-item questionnaire developed in our lab to assess various diet and exercise behaviors (see Appendix F). Participants are asked to circle either yes or no in response

to one of the 11 questions prompted, as well as are given space to list all items related to response. For the purposes of this study it was originally used as a deceptive measure.

TABLE 1

Factor Structure of the Affective Body Satisfaction (ABS)

ABS: Factor 1 (General Body Composition)	ABS: Factor 2 (Upper Torso)	ABS: Factor 3 (Legs)
ABS3: Overall Body Build	ABS1: Shoulders	ABS7: Lower Legs (calves)
ABS8: Muscle Tone	ABS2: Biceps (front of upper arm)	ABS10: Upper Legs (quadriceps and hamstrings)
ABS9: Stomach/Abdominals	ABS4: Chest/Breasts	
ABS11: Overall Body Fatness (amount of fat on body)	ABS5: Back	
ABS 12: Weight	ABS6: Triceps (back of upper arm)	
ABS13: Overall Muscle Mass (amount of muscle on body)		

*Demographic measures* (see Appendix D). A demographic questionnaire asked participants to fill in their sex, age, and circle their ethnicity (choices consisted of Caucasian, African American, Hispanic, Asian American, Pacific-Islander, or Other).

*Design and Procedures* (see Appendix B)

After obtaining informed consent (see Appendix C), participants were randomly assigned to one of four groups and were then instructed to sit at one of five computers

that were spaced across the side and back walls of a computer lab for the purposes of attempting to hinder participants from viewing other's slideshows and answers. They were then informed that they were participating in a study, "whose purpose [was] to examine the relationship between [their] exercise/body image attitudes and [their] memory for products in advertising." This served as the deceptive cover story. Next, participants completed the Demographic Questionnaire, the DEBQ, and the SMAQ. Each participant was instructed to bring to the forefront the slideshow number which corresponded with the number he drew out of the envelope. The experimenter went around the room to make sure the correct slideshow was on their screen. Before clicking on the first slide which pictured the number corresponding with the group number the participant was in, all participants were told that the slides were intended to test their memory for products in advertising, and that after clicking the first slide they would view for 15 seconds each an advertisement at which point it would automatically go on to the next slide. Participants were asked to refrain from looking around at other participant slideshows if their slideshow finished before others. The slideshows contained either 15 lean/muscular male body type advertisements, 15 thin males body type advertisements, 15 average size male body type advertisements, or 15 slides of sports apparel. After viewing the slides, participants then completed the SM, ABS, BIA, and BMA. Participants were then debriefed by a written form (see Appendix L), as well as asked informally about their understanding of the study to determine if the deception had worked. In general, the deceptive cover story was believed to be the true intent of the experiment.



## RESULTS

*Randomization Effect*

To ensure that that randomization had been effective, we first compared the four experimental groups on the demographic variables (age and BMI) and the two scales from the SMAQ (DFM and PAM). As can be seen in Table 2, there were no statistically significance differences on any of these variables and the effect sizes were all very small.

TABLE 2

Analysis of Variance for Experimental Groups across Age, BMI, & SMAQ Subscales

	F*	p	$\eta^2$
Age	.61	.61	.02
BMI	.71	.55	.02
DFM	1.49	.22	.04
PAM	.77	.51	.02

Note. \*Degrass of Freedom: = 3, 122; BMI = Body Mass Index; DFM = Drive For Muscularity subscale of the Swansea Muscularity Attitudes Questionnaire; PAM = Positive Attributes of Muscularity subscale of the Swansea Muscularity Attitudes Questionnaire.

*Psychometric Properties of Dependent Variables*

With the BMA, internal consistency for the four trials of current and ideal body image were .97 and .82 respectively. Body mass index was highly correlated with current body size estimates from all three measures. Notably, BMI was not significantly correlated with FFMI from the SM, and the multiple correlation for both SM variables predicting BMI was only .69 (suggesting that FFMI did not add to the predictive value

of BF %; see Table 3). Convergent validity of the three measures was generally high. Convergent validity coefficients for current body size (using BF% from the SM) ranged from  $r = .61$  (for the BIA and BMA) to  $r = .75$  (for the BMA and SM). In contrast, FFMI from the SM was not highly correlated with either the BMA ( $r = .13$ ) or BIA ( $r = .25$ ). The relationship between the SM and the other two measures was generally not improved when adding FFMI in a regression model, suggesting that the BIA and BMA were more pure measures of body fatness rather than muscularity. Convergent validity coefficients for ideal body image were generally lower and ranged from  $r = .24$  (for BIA and SM) to  $r = .41$  (for the SM and BMA). When predicting affective body dissatisfaction from current and ideal ratings (using only BF% from the SM), multiple R values for the SM, BMA, and BIA were  $R = .45$ ,  $R = .36$ , and  $R = .41$  respectively. However, when current and ideal FFMI was added to the model for the SM, there was a significant increase in variance explained (new multiple  $R = .53$ ). Both current ( $\beta = .33$ ) and ideal FFMI ( $\beta = -.20$ ) were significant predictors of affective body dissatisfaction, above and beyond the other variables in the model. As might be expected, FFMI (and in particular Ideal FFMI) was the best predictor of attitudes towards muscularity (as measured by the SMAQ).

#### *Experimental Effects on Body Image*

The effectiveness of the experimental manipulation was tested using three separate multivariate analyses of variance (MANOVAs), one for current body image (from BIA, BMA, and SM), one for ideal body image (also from BIA, BMA and Matrix) and one for body dissatisfaction (from BIA, BMA, SM, and ABS). The results of these

analyses are presented in Table 4. As can be seen, none of the three were statistically significant.

TABLE 3

Convergent Validity Coefficients for Current Body Size and Relationship with BMI

		BMI	BMA-Current	SM-Current FFMI	SM-Current BF%
BMA-Current	Pearson Correlation	.666			
	Sig. (2-tailed)	<.001			
SM-Current FFMI	Pearson Correlation	.092	.126		
	Sig. (2-tailed)	.305	.161		
SM-Current BF%	Pearson Correlation	.657	.749	.069	
	Sig. (2-tailed)	<.001	<.000	.441	
BIA-Current	Pearson Correlation	.719	.606	.249	.620
	Sig. (2-tailed)	<.001	<.001	.005	<.001

Note. BMI = Body Mass Index; BMA = Body Morph Assessment; SM = Somatomorphic Matrix; BF% = Body fat Percentage index of the Somatomorphic Matrix; FFMI = Fat Free Mass Index of the Somatomorphic Matrix; BIA = Body Image Assessment.

TABLE 4

Multivariate Analysis of Variance for Current, Ideal, and Body Dissatisfaction

Test Name	Wilks	Approx. F	Hypoth. DF	Error DF	Sig. of F
Current	0.92431	0.79301	12.00	315.14	0.658
Ideal	0.87742	1.33055	12.00	315.14	0.200
BD	0.88118	1.01947	15.00	326.15	0.434

Note. Current = Current Body Image; Ideal = Ideal Body Image; BD = Body Dissatisfaction (Ideal – Current Body Image).

### *Moderator Effects*

Although there were no main effects for the experimental manipulation, possible moderator effects were examined using multivariate analysis of covariance (MANCOVA). That is, both proposed moderators (drive for muscularity and positive attitudes about muscularity) were tested as covariates along with their interaction with the experimental condition variable. These were tested in three separate multivariate analyses (as describe above), one using measures of current body image, a second ideal body image, and a third body dissatisfaction. None of the six moderator tests (2 moderator variables for 3 MANOVAs) were statistically significant (see Table 5).

TABLE 5

Test of Moderator (Interaction) Effects

Test Name	Wilk's	Approx. F	Hypoth. DF	Error DF	Sig. of F
Current					
DFM	0.859	1.50	12.00	304.55	0.12
PAM	0.889	1.16	12.00	304.55	0.31
Ideal					
DFM	0.919	0.82	12.00	304.55	0.63
PAM	0.901	1.02	12.00	304.55	0.43
BD					
DFM	0.887	0.94	15.00	315.11	0.52
PAM	0.867	1.12	15.00	315.11	0.34

Note. Current = Current Body Image; Ideal = Ideal Body Image; BD = Body Dissatisfaction (Ideal – Current Body Image); DFM = Drive For Muscularity subscale of the Swansea Muscularity Attitudes Questionnaire; PAM = Positive Attributes of Muscularity subscale of the Swansea Muscularity Attitudes Questionnaire.

*Exploratory Research: DEBQ Questions & Dependent Variables*

For these analyses, scores on the various body image measures were the dependent variables. Persons who did or did not endorse each of the 11 DEBQ questions were compared using independent samples t-tests. A summary of these results is in Table 6. For the Ideal FFMI on the SM, significant relationships are found on eight of the eleven questions.

**TABLE 6**  
**Relationship Between Dieting and Exercise Behaviors and Body Image**

DEBQ Question	SM Current-FFMI	SM Current-BF%	SM Ideal-FFMI	SM Ideal-BF%	SM BD-FFMI	SM BD-BF%
1	<.001		<.001			
2						
3						
4			.008			
5	.002		.015			
6		.019				.005
7	<.001		.002	.005		
8	.034	.054	.001	.007		<.001
9			.089			
10			.039			
11	<.001		<.001	.005		.043

DEBQ Question	BIA-Current	BIA-Ideal	BIA-BD	BMA-Current	BMA-Ideal	BD-BMA	ABS-Factor 1
1							
2							
3							
4		.012					.031
5							
6			.031	.072		.021	
7							
8	.008		.005	.009		.004	
9							
10							
11							

Note. Values in table are probability values from t-tests with  $df = 124$ ; DEBQ = Diet and Exercise Behavior Questionnaire; Current = Current Body Image; Ideal = Ideal Body Image; BD = Body Dissatisfaction (Ideal - Current Body Image); SM = Somatomorphic Matrix; BIA = Body Image Assessment; BMA = Body Morph Assessment; ABS Factor 1 = Affective Body Satisfaction, Factor 1 (General Body Composition).

## DISCUSSION

The present study was designed to examine the possible effects of the media on male body image. The experiment examined the effect of ideal and thin male images on the body image of participants after they viewed one of the four slideshow groups. Specifically, it was hypothesized that the muscular and not the thin male images would induce acute body dissatisfaction in the male participants. Furthermore, it was proposed that muscular attitudes, as measured by the SMAQ, would serve as a moderating variable if body dissatisfaction did in fact occur. Lastly, this experiment sought to speak to the validity of three different body image measurements, namely the BIA, BMA, and SM.

An overall experimental manipulation was not detected, and predictions regarding possible moderator effects were not supported by these data. Although one interpretation is simply that males are not affected by media images, the author feels that the problem in the current study may have been a very weak manipulation as a consequence of using poor quality images. That is, the attempts to make the images racially neutral appeared to lead to an overall reduction in quality of the images. Future research should attempt to actually study race/ethnicity (both in the participants and the images) rather than attempt to simply control for it.

Despite the failure to create or measure an experimental manipulation of male body image, these data do add to the body of research on the assessment of male body image. This was the first study to concurrently administer the BMA and the Somatomorphic Matrix, the two state-of-the-art computerized assessment measures. In

general, the findings support the use of three of the procedures used to measure various aspects of male body image; the BIA, BMA, and SM. However, it seems clear that both the BIA and BMA were mainly sensitive to measuring “thinness/fatness” and not muscularity; the SM was capable of measuring both. Although the BMA and BIA may be useful in research with males, if one follows the recommendations of Cafri and Thompson (2004), it would be inappropriate to use these as the only measure of male body image.

The analyses based on the dieting and exercise questionnaire should be viewed as exploratory. However, in general, individuals who engaged in more body image concern behaviors (i.e. working out regularly, taking pro-hormones such as DHEA or andro, etc...) were more likely to have a larger ideal FFMI as measured by the SM. Although the DEBQ has not been psychometrically validated outside this researcher’s lab, these findings do indirectly challenge Hausenblas and Downs (2001) findings that athletes have a more positive body image in comparison to non-athletes. However, it does indirectly support Raudenbush and Meyer (2003) findings which reveal athletes desires to gain more muscle. Furthermore, those athletes which use supplements to gain weight were 15 pounds heavier, viewed their own physique as larger than those who did not engage in taking supplements, and engaged in working out more hours every week. This coupled with the fact that significant values of eight out of eleven relationship possibilities were seen with the Ideal FFMI on the SM and DEBQ bring forth the concern that males whom already view themselves as larger than they really are striving



for even larger ideals in comparison to the males who were less engaged in diet and exercise concerned behaviors.

## CONCLUSION

Overall, the results add to the body of research on measurement and prediction of male body image. The study provides additional support for the use of the Somatomorphic Matrix to measure the construct. Additional experimental research is needed to better determine the effect of the media on men as well as what individual difference variables (e.g. race/ethnicity, attitudes toward muscularity) may moderate such effects.

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## APPENDIX A

## Manipulation Check Instructions

After starting the PowerPoint Slideshow found on the disk, please indicate next to each Slide Number on the answer sheet (attached to this sheet of paper) which Group Number you would place each of the images into that are viewed in the slideshow. On the answer sheet all that you need to write next to the slide number listed is the numeric number of the group you feel it belongs in. The groups are defined as follows:

Group #1: Lean Muscular Male Body Type

- I feel this male's body is of a large muscular physique. I feel this body is of a larger body stature as a result of its muscularity and not as a result of fatness.
- This body would not be defined as muscular yet fat/chubby, muscular but not well defined, or as having a skinny/thin muscular physique. I would also not describe this body as being grotesquely muscular.

Group #2: Thin Male Body Type

- I feel this male has a very thin/bony/slim/or skinny body type.
- This body would not be defined as being muscular, or as being fat/overweight/plump/chubby/ or a stout type of body.

Group #3: Average Male Body Type

- I feel that this male's body type is defined as being neither a thin/slim/bony/or skinny body type, nor as being muscularly defined.

Group #4: Body Type Not Distinguishable Between Groups

- I either feel this male's body type could not be placed distinguishably in only one of the above groups, or I feel that this body type would not fit well in any of the above three groups.



## APPENDIX B

## Memorable Advertisement Procedure Instructions

*Set up computers so that a folder is open with slideshows 1-4 and word document titled e-mail, SM is ready with participant number showing and minimized, and BMA program is opened to first screen and minimize. Put folders together with all paper-based questionnaires in order.*

“Hello. Thank you for coming. You have signed up for a study whose purpose is to examine the relationship between your exercise/body image attitudes and your memory for products in advertising. Here is are two Informed Consent Forms which will have a description of what you will be doing, the compensation you will receive for your participation (i.e. 1 hour of credit), and contact information if you have any questions or concerns about this study. Basically, during this study you will first complete a couple of questionnaires, view a series of slides, complete a couple of more questionnaires, and then be tested over your memory of the slides you viewed. Please read completely through the Informed Consent and if everything seems okay to you, go ahead and sign and date one of the forms. Please hang onto the copy one as a secondary means of proof that you attended this experiment.”

*Give participant two Informed Consent Forms, then after they sign and date one copy have them place it upside down next to their computer.*

“Please draw a number out of this envelop. Write this number at the top right of this sheet of paper and fill out the other questions it asks.”

*Sit participants by a computer.*

“Please place the sheet you just filled out to the right of your computer face down.”

“To begin with, please complete the next two questionnaires I hand to you.”

*Hand participant the DEBQ and the SMAQ.*

*Set up slideshow they are supposed to view while they fill these out (Right Click Icon and go to View on the slideshow titled with the number that they pulled out of the envelope).*

“Next please place the questionnaires face down on top of your signed Informed Consent.”

“You will now view a series of 20 slides, each for a period of 15 seconds each. The slides will automatically change after 15 seconds, with the exception of the slide you are

viewing now, so there will be no need to touch the computer once you click the first slide.” As you view these slides, please recall that this study is going to measure your memory of these slides. With that in mind, please pay attention to all of the details in the slides. If your slideshow has people in it, their faces will be covered with a white circle. This is no deceptive trick; it is simply intended to conceal their faces. After viewing these slides you will be asked to recall many different details about the images you view in a memory test. The memory test will consist of questions about your memory on only 5 of the 20 slides you view. Now click on the screen to begin the slideshow. Please do not look around at any other participant’s slideshows.”

*After all slideshow are viewed, close them for each participant and bring the SM to the forefront of their screen.*

“To allow some time to pass before we quiz you on your memory please complete a couple more questionnaires.”

“First go through the computer questionnaire maximized on your screen.”

“Next please complete these two paper-based questionnaires I am handing you. When you are finished, place them face down on top of the other questionnaires you have already completed.”

*Hand Pp the BIA and the ABS.*

*Bring to the forefront of the screen the BMA will they complete the BIA and ABS, and write in their participant number.*

“Now please complete the next computer questionnaire maximized on your screen.”

*Inform them orally of the true nature of the experiment, AND by handing them the Debriefing Form. Answering any questions they have.*

*Ask participants if they believed the cover store of the study. If they did tell them to write “Believed” in lower right corner of Informed consent, if not then tell them to write “Questioned”. If not ask them to write comments as to their thoughts about its true nature.*

*Ask them to staple all sheets together in order, and to write their participant number and number that they pulled out of envelope at the top right of each page.*

*Allow them to leave only after you say:*

“If you are interested in this study and would like to be sent the results, just put your email address on the word document that is title “e-mail” in the open folder on the desktop of the computer. Also I would like to note, please do not let your classmates know about the true intent of this study, for if you do they could significantly distort the results. Thank you for your participation.”

## APPENDIX C

## Informed Consent Form - Slide Memorization Investigation

I understand that I am participating in a study on the relationship between exercise/body attitudes and memory for images used in advertising. I further understand that this study is being supported by the University Fellows Program. More specifically, during the experiment I will first complete a series of questions on my exercise habits and attitudes, then view a number of slides from popular health/fitness magazines or the internet, after which I will complete a series of body image measures. Finally, I will be asked questions about the products that I viewed in the slides. For the present study, I understand that data will be collected from approximately 120 male undergraduate students, 18 years of age and older, and from diverse racial and ethnic backgrounds whom I myself signed up for the study. I understand that the session will take one hour to complete.

With the exception of receiving one hour of credit towards completion of my Introductory Psychology Course requirement, I understand that I will receive no direct compensation or benefit from participation. I am also aware that there are other opportunities to fulfill the requirements for this course that do not involve participation in psychological research. I understand that my participation is voluntary and that I may withdraw at any time from the experiment without being penalized for doing so. If I do choose to withdraw, I understand that I will still receive credit for participation. I am also aware that I may refuse to answer, without penalization, any questions that make me feel uncomfortable. I am aware that participation in this study poses no inconvenience or physical danger to me.

I understand that it is possible that some degree of psychological distress may result from exposure to the slides I view, from the investigators inquiring about my thoughts/feelings/body image, and from other information disclosed during the study. However, I am aware that any possible distress experienced should be minimal. If I feel the need to discuss any reactions or concerns as a result of my participation in the present study, I am aware that I may call Dr. David Gleaves (Department of Psychology) in Room 278 of the Psychology Building at 845-9525, or reach him by e-mail at dhg@psyc.tamu.edu. Furthermore, I have also been informed that I may contact any of the following agencies for professional evaluation or consultation:

TAMU Psychology Clinic: 845-8017

TAMU Counseling and Assessment Clinic: 845-8021

TAMU Student Counseling Service: 845-4427

I understand that the study's researchers do not anticipate any circumstances under which my participation in this study would be terminated without regard to my consent. I am aware that participation in the present study is entirely anonymous. That is, my name will only appear on the consent form and will not be connected to the questionnaires. An ID number will be assigned that will not be connected in any way with my name.

“I understand that this research study has been reviewed and approved by the Institutional Review Board – Human Subjects in Research, Texas A&M University. For research-related problems or concerns regarding subjects’ rights, the Institutional Review Board may be contacted through Dr. Michael W. Buckley, Director of Support Services, Office of Vice President for Research at (979) 458-4067.”

For further information, I know that I may contact: David H. Gleaves, Ph.D., Department of Psychology, Texas A&M University, College Station, TX 77843-4235. The principal experimenter, Joey Mignogna can also be reached at 979-574-7340 or by email at joey\_mignogna@neo.tamu.edu. I have read and understand the explanation provided to me. I have had all my questions answered to my satisfaction and voluntarily agree to participate in the present study.

I have been provided a copy of this consent form.

---

Participant Signature

Date

---

Principal Investigator

Date

## APPENDIX D

## Demographic Questionnaire

Participant Number: \_\_\_\_\_

Slideshow Number: \_\_\_\_\_

Sex: \_\_\_\_\_

Ethnicity: (circle one)

Caucasian

African American

Hispanic

Asian American

Pacific-Islander

Other

Age: \_\_\_\_\_

## APPENDIX E

## SMAQ

Please place a cross (X) under the column that applies best to each of the following numbered statements. All of the results will be *strictly* confidential. The options are coded as follows:

- 1 = definitely  
 2 = strongly agree  
 3 = agree  
 4 = neutral  
 5 = disagree  
 6 = strongly disagree  
 7 = definitely not

- | 1                        | 2                        | 3                        | 4                        | 5                        | 6                        | 7                        |   |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. I feel that I am less attractive to prospective partners when I have small muscles than when I have larger muscles |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. I would like to be bigger in the future  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. Men with small muscles are less masculine than men with large muscles  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 4. I aim to develop further my physique   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5. I would like to be more muscular in the future   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 6. I feel bad about my body when I do not feel very big or muscular   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 7. I would like to spend more time building up my muscles   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 8. I think that large muscles are a sign of masculinity   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 9. I often engage in bodybuilding   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 10. I feel more masculine when I am more muscular   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 11. I intend to become more muscular in the future  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 12. Being larger, stronger-looking, and more muscular makes men more attractive to prospective partners               |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 13. I want to be more muscular than I am now  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 14. I often engage in activities that build up my muscles   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 15. I feel less of a man when I have small muscles than when I have large muscles                                     |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 16. It is important to me that I should be more rather than less muscular   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 17. Being muscular gives me confidence  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 18. I feel that when I have small muscles I do not look as good as when I have large muscles                          |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 19. I would prefer to be more rather than less muscular   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 20. I feel more of a mature man when I have large muscles   |

## APPENDIX F

## Diet and Exercise Behavior Questionnaire

- Do you workout regularly with weights? Yes No
- If “yes,” how many times (typically) per week? \_\_\_\_ And for how long (typically) each time? \_\_\_\_
  - If “yes,” at what age did you start working out with weights regularly?  
\_\_\_\_\_
- Do you do regular cardio vascular workouts? Yes No
- If “yes,” how many times (typically) per week? \_\_\_\_ And for how long (typically) each time? \_\_\_\_
  - If “yes,” at what age did you start doing cardiovascular workouts (i.e., non-team sports) regularly? \_\_\_\_
- Have you ever taken steroids to gain muscle mass? Yes No
- Have you ever taken pro-hormones (e.g. DHEA, andro, GH, etc.) to gain muscle mass? Yes No
- If “yes,” please list them (list all that apply), and in parenthesis, indicate for how long  
\_\_\_\_\_  
\_\_\_\_\_
- Have you ever done things that you thought were unhealthy at the time you did them in order to gain muscle mass? Yes No
- If “yes,” what were they? (list all that apply)  
\_\_\_\_\_  
\_\_\_\_\_
- Have you ever done things that you thought were unhealthy at the time you did them in order to reduce your body fat? Yes No
- If “yes,” what were they? (list all that apply)  
\_\_\_\_\_  
\_\_\_\_\_
- Are you currently on a diet specifically to gain muscle mass? Yes No
- If “yes,” please briefly describe this diet? (list all that apply)  
\_\_\_\_\_  
\_\_\_\_\_
- Are you currently on a diet specifically to reduce your body fat? Yes No
- If “yes,” please briefly describe this diet? (list all that apply)  
\_\_\_\_\_  
\_\_\_\_\_



- Have you ever suffered an injury from overexertion during a workout? Yes  
No
  - If “yes,” what was/were the injury/injuries?  
\_\_\_\_\_  
\_\_\_\_\_
  - \_\_\_\_\_
- Have you ever gone back to working out before recovering fully from an injury? Yes No
  - If “yes,” what was/were the injury/injuries?  
\_\_\_\_\_  
\_\_\_\_\_
- Have you ever taken dietary supplements (e.g. protein, meal replacements, ephedrine, etc.) to change the appearance of your physique? Yes No
  - If “yes,” please list them (list all that apply), and in parenthesis, indicate for how long  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## APPENDIX G

## Body Image Prompts/Questions Used On the Somatomorphic Matrix

“Please practice manipulating the body using the four buttons on the right.”

“Please choose the image which most closely resembles your own body.”

“Please choose the image that represents the body that you ideally would like to have.”

“Please choose the image that represents the body women [men] desire most.”

“Please choose the image that represents the female [male] body you find most attractive.”

## APPENDIX H

## Affective Body Satisfaction

Instructions: On this page are listed a number of body areas or aspects. Please indicate how you satisfied you are with each of the following areas or aspects of your body

- 1 = Very Dissatisfied
- 2 = Mostly Dissatisfied
- 3 = Somewhat Dissatisfied
- 4 = Neutral/Indifferent
- 5 = Somewhat Satisfied
- 6 = Mostly Satisfied
- 7 = Very Satisfied

\_\_\_\_\_ Shoulders

\_\_\_\_\_ Biceps (front of upper arm)

\_\_\_\_\_ Overall Body Build

\_\_\_\_\_ Chest/Breast

\_\_\_\_\_ Back

\_\_\_\_\_ Triceps (back of upper arm)

\_\_\_\_\_ Lower Legs

\_\_\_\_\_ Muscle Tone

\_\_\_\_\_ Stomach/Abdominals

\_\_\_\_\_ Upper Legs (quadriceps and hamstrings)

\_\_\_\_\_ Overall Body Fatness (amount of fat on body)

\_\_\_\_\_ Weight

\_\_\_\_\_ Overall Muscle Mass (amount of muscle on body)

## APPENDIX I

## Body Image Assessment-Body Questionnaire

Are you: (please circle)      male                      female

Using the figures on the following page, please respond to the following questions as honestly as possible.

1. Please select the figure that most closely matches your current body size. \_\_\_\_\_
2. Please select the figure that most closely matches your ideal body size. \_\_\_\_\_
3. If you are female, please select the male figure that you would find most physically attractive. \_\_\_\_\_

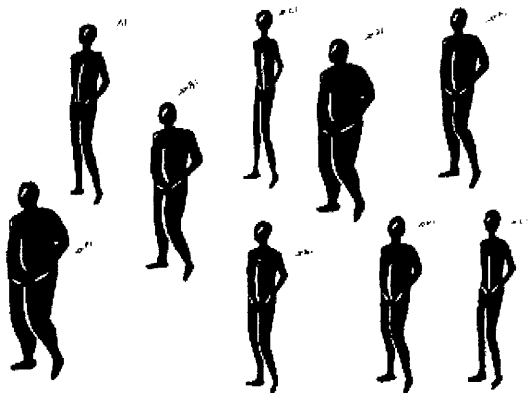
OR

If you are male, please select the female figure that you would find most physically attractive \_\_\_\_\_

4. If you are female, please select the female that you believe would be most attractive to males \_\_\_\_\_

OR

If you are male, please select the male figure that you believe would be most attractive to females \_\_\_\_\_



\*Note: Male silhouette figures have been decreased in size.

## APPENDIX J

## Body Image Prompts/Questions Used On the BMA

“Select the figure you see as being your Acceptable size (i.e. the body size that you believe is realistic for you to maintain over time).”

“Select the figure you see as being your Current size.”

“Select the figure you see as being your Ideal size (i.e. the body size that you would most prefer).”

*\*Note: Order of presentation varies.*

## APPENDIX K

## Debriefing Form

Thank you for participating in this study. We would like to give you some information about the study so that you will have a better idea of how psychological research is conducted and how your time and effort may contribute to our understanding of male body image.

This experiment did involve some degree of deception. While you were told that you were viewing the slides for the purpose of testing your ability to recall them, the true intent of the study was to examine the effect of the media on your body image. This degree of deception was necessary because disclosing the fact that the experiment tested the effect of media on body image might have influenced the nature of your response to the assessment measures, thus confounding our interpretation of the true nature of the effect of media exposure on male body image.

You were assigned to one of four conditions. One group viewed images of muscular male bodies, a second viewed images of thin male bodies, and the third and fourth viewed control images (human and non-human). We are wondering if exposure to the muscular images, and not the thin-male or control images, will temporarily increase body dissatisfaction among the male participants. If so, we will also examine whether attitudes towards muscularity affect the relationship between exposure to images of the male body ideal and body dissatisfaction. Lastly, in the experimentation we will compare body dissatisfaction as measured by two different types of measures (i.e. body image size in terms of fatness and in terms of muscularity) you completed in order to speak to the validity of each.

If you have further questions about this research you can contact Dr. David H. Gleaves at (979) 845-9525 (email [dhg@tamu.edu](mailto:dhg@tamu.edu)) or your principal investigator Joseph Mignogna at (979) 574-7340 (email [joey\\_mignogna@neo.tamu.edu](mailto:joey_mignogna@neo.tamu.edu)). Furthermore, you may also contact any of the following agencies for professional evaluation or consultation:

TAMU Psychology Clinic: 845-8017  
TAMU Counseling and Assessment Clinic: 845-8021  
TAMU Student Counseling Service: 845-4427

Once again, thank you for your participation.

## VITA

Joseph Mignogna

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## Education

- Texas A&M University, College Station, Texas; 01/02-Present  
Bachelor of Science Degree in Psychology; May 2004
- Saint Mary's University, San Antonio, Texas; 08/00-12/01

## Research Experience

- Texas A&M University, *Volunteer*, Supervisor: Advisor: David H. Rosen, M.D.  
01/04-Present
- Texas A&M University, *Research Fellow*, Advisor: David H. Gleaves, Ph.D.  
3/03-Present
- Texas A&M University, *Research Assistant*, Supervisor: David H. Gleaves, Ph.D.;  
1/03-5/03
- Texas A&M University, *Researcher*, Supervisor: Heather Bortfeld, Ph.D.  
8/02-12/02
- Texas A&M University, *Researcher*, Supervisor: William G. Graziano, Ph.D.  
7/02-8/02

## Peer Reviewed Presentations

Chartier, J., Sheese, B., Mignogna, J. & Graziano, W. G. (2004, January). *The effects of violence in video games on cooperative and competitive behavior*. Poster presented at the annual conference of the Society for Personality and Social Psychology, Austin, Texas.

## Professional Membership

- *Member*; Phi Beta Kappa, Kappa of Texas; 05/04
- *Member*; Circle of Friends of Analytical Psychology; 11/03-Present
- *Member*; Psi Chi (Psychology Honors Society); 4/03- Present
- *Member*; Pi Gamma Mu (Social Science Honor's Society); 4/03- Present
- *Member*; American Psychological Association; 8/02- Present

## Awards &amp; Honors

- Texas A&M University Undergraduate Research Fellows Distinction; 05/04
- Second Place; Texas A&M University Student Research Week; 04/04
- Presidential Scholarship; Saint Mary's University; 08/00-12/01
- Texas A&M University Dean's List; Spring 2002
- Saint Mary's University Dean's List, Fall 2000