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An Experimental Investigation of Fat Talk Among College Women

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An Experimental Investigation of Fat Talk Among College Women

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Submitted in fulfillment of Honors Requirements for the Department of Psychology, Dickinson College

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Abstract

“Fat talk”, an emerging concept within the eating disorder literature, refers to normalized conversations that involve degradation of body shape, weight and size. Previous research suggests that these negative body comments have detrimental effects on body dissatisfaction, self-esteem, mood and dieting behaviors, but this research is fairly limited due to the absence of a standardized experimental manipulation of fat talk. The current study investigated the causal effects of fat talk on body dissatisfaction, self-esteem, mood and eating behavior, while also examining the potential moderating effects of three individual difference variables (i.e. self-esteem, neuroticism and dietary restraint). A pilot study (N = 30) evaluated the appropriateness of researcher-developed manipulations for “fat talk” and neutral conditions. In the main study, women undergraduates (N = 116) completed baseline measures of body dissatisfaction and self-esteem, and were subsequently randomized to fat talk or neutral conditions and were concurrently presented with a food stimulus. Results indicate that differences between the fat talk and neutral conditions on food consumption and changes in body dissatisfaction and self-esteem were not statistically significant. However, fat talk and neutral conditions did differ significantly on reported negative affect. Further, although neuroticism and self-esteem did not moderate the relationship between condition type and body dissatisfaction, this relationship was moderated by dietary restraint. These findings highlight the importance of individual vulnerability characteristics, and the continued need to develop standardized manipulations of fat talk.
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An emerging research area within the eating behavior literature is that of “fat talk,” or the ways in which individuals communicate about their bodies. These normalized conversations focus on degrading one’s own body, in terms of its shape and weight, but are often extended to comments about others’ bodies (Nichter, 2000). Fat talk has also been defined in terms of negative body communication, which was operationalized as negative appearance-related comments and comments encouraging dieting behaviors (Kichler & Crowther, 2009). Research also suggests that fat talk is a form of negative body talk that specifically focuses on having excess weight, which is associated with frequent dieting behaviors and comments conveying a desire to be thin (Kichler & Crowther, 2009).

Although fat talk involves the isolation and critique of an individual’s body, it appears to be distinct from body objectification, a related construct. Body objectification theory proposes that constant exposure to the thin-ideal, and external evaluations that accompany these beliefs, leads individuals to view themselves as objects to be used and valued by others (Frederickson & Roberts, 1997), meaning that self-objectifying situations result in an individual feeling the need to monitor his or her body because it will be viewed and judged by others. However, research suggests that fat talk is distinct from body objectification; for instance, in an experimental study, researchers reported that hearing fat talk in a high objectification situation resulted in less negative feelings relative to hearing fat talk in a, low objectification situation (Gapinski, Brownell, & LaFrance, 2003). Although these results only reflected a trend towards significance, they suggest that body objectification may interact with fat talk to predict negative affect, thus indicating that these two constructs may be mutually influential but are still distinct. Additionally, engaging in fat
talk requires that an individual also engage in an interpersonal interaction, whereas objectification theory focuses on the gaze of others, with this gaze always having the potential to be objectifying. Fredrickson and Roberts (1997) also highlight that women are not able to control the gaze of others, which is another contrasting feature to fat talk, in that women are able to control their body and appearance-related comments and conversations. This further suggests that fat talk and body objectification are distinct constructs, but research is still needed to clarify their similarities and differences.

As there are various definitions of fat talk, there are also a variety of content areas that are encapsulated by this construct. One study found that the most common topic of fat talk is the discussion of others’ appearance, specifically in terms of body weight and shape (Ousley, Cordero, & White, 2008), but these frequent and socially acceptable negative conversations may also include such topics as the discussion of excessive eating and dieting behaviors, as well as self-comparison to an ideal body weight and shape (Salk, Engeln-Maddox, 2011). For instance, in a study about body concerns and dieting behaviors, young girls (aged 14- to 16-years old) reported that friends regularly engaged in degrading conversations about their bodies, as well as discussed specific methods for changing their body types through dieting (Wertheim, Paxton, Schutz, & Muir, 1997), indicating that fat talk includes a variety of negative body and eating related comments. Due to the variability in definitions of the “fat talk” construct, as well as a lack of clarity regarding its consequences, the present study seeks to clarify fat talk and its affective, behavioral and cognitive consequences among a sample of undergraduate women.
Reasons for Engaging in Fat Talk

Interestingly, research found that in most instances, women who engage in fat talk conversations are of normal weight, and are, in fact, not fat (Salk & Engeln-Maddox, 2011), suggesting that there may be other reasons why women engage in degrading body conversations. In this study, college women reported that they engaged in fat talk to gain reassurance from friends that they were not alone in experiencing negative body-related perceptions. Fat talk also reportedly created stronger alliances among friends, in that it was used to provide emotional support and show empathy for a friend who expressed body-related concerns. Additionally, some research suggests that body image may not be influenced by those who are listening to an individual’s body comments (Craig, Martz, & Bazzini, 2007), but one perspective proposes that fat talk is a function of social conformity, meaning that individuals engage in fat talk to be accepted into a group (Tompkins, Martz, Rocheleau & Bazzini, 2009). For instance, one study found that women who interviewed with a confederate discussing her body in either a negative or positive manner, were more likely than not to respond to questions with the same negative or positive body perceptions (Tucker, Martz, Curtin, & Bazzini, 2007). These results seem to suggest that body-focused comments made by others may, in fact, influence women’s own body presentations. Further, Tompkins and colleagues (2009) found a large effect for social conformity, in that participants perceived that likability scores for a female vignette character were contingent on whether or not she conformed to her group’s negative or positive body comments. This indicates that engaging in specific types of body comments, one of which is fat talk, may lead to gaining acceptance into a social group; but as there are conflicting viewpoints, further
research is needed to clarify fat talk in terms of the reason why individuals engage in degrading body conversations.

**Affective and Cognitive Consequences of Fat Talk**

Although the reasons for engaging in fat talk are somewhat unclear, the consequences of various types of negative body talk (including fat talk) on body dissatisfaction, self-esteem, and disordered eating behaviors have received some empirical support. For example, one study found a medium effect for negative peer communication and modeling being significantly and positively related to body dissatisfaction, dieting behaviors, and preoccupation with food (Kichler & Crowther, 2009). Similarly, results from another study found that negative comments made by peers explained a significant amount of the variance in body dissatisfaction, drive for thinness, self-esteem and bulimic symptoms (Thompson et al., 2007), suggesting that negative conversations about body weight and shape may influence self-perceptions, as well as clinical symptomology.

Although studies suggest that negative body talk is associated with negative self-perceptions and disordered eating, the research explicitly focusing on *fat talk*'s relationship with mood, body dissatisfaction, and eating pathology is somewhat limited and conflicted. In particular, research assessing the relationship between fat talk and negative affect offers mixed findings. For instance, one study found that pairing fat talk with wearing a swimsuit resulted in marginally *reduced* negative emotions compared to pairing fat talk with wearing a sweater (Gapinski, Brownell, & LaFrance, 2003). The authors speculated that this may have resulted from the participant comparing herself to the confederate (i.e. self-comparison behaviors), in that the self-directed fat talk comments made by confederates, who were invisible to participants, may have caused the participant to feel more confident about her
own body, indicating that comparing oneself to others may affect self-perceptions and mood. Alternately, fat talk may have adverse effects on mood and body perceptions, in that research has reported a large effect for women who compared their bodies to photographs featuring thin models reporting higher depression, anger, and hostility relative to women who viewed photographs containing no people (Pinhas, Toner, Ali, Garfinkel, & Stuckless, 1999). This type of body-related comparison behavior was also associated with increased body dissatisfaction (Bailey & Ricciardelli, 2010). Fat talk has been shown to increase body dissatisfaction in an experimental situation (Stice, Maxfield & Wells, 2003), and has been reported, by adolescent girls, to affect their subsequent body perceptions and intent to engage in dieting behaviors (Wertheim, Paxton, Schutz, & Muir, 1997). Moreover, demonstrating the importance of fat talk to body image concerns and eating pathology, researchers have developed dissonance-based prevention programs targeted at eliminating fat talk. Consequently, researchers have reported that combating fat talk resulted in decreases in body dissatisfaction and bulimic symptoms (with medium effect sizes) at 8-month follow-up (Black-Becker et al., 2008). In sum, these data suggest that fat talk has significant associations and effects on variables such as body dissatisfaction, mood and eating behavior.

**Behavioral Consequences of Fat Talk: Eating Behavior**

The relationship between fat talk and eating behavior is of particular interest due to the well-established association between body dissatisfaction and eating disorder symptomology (Makri-Botsari, 2009). Thus, fat talk may exhibit an indirect relationship with eating disorders because of its propensity to increase body dissatisfaction (Stice, Maxfield and Wells, 2003), which has been demonstrated to change eating behavior (Babio, Arija, Sancho, & Canals, 2008). A medium sized effect was reported in one study which found that
women who were made aware of their body size and shape with a mirror ate significantly less high-fat foods compared to women who did not observe themselves in a mirror (Sentyrz & Bushman, 1998), suggesting that raising self-awareness in a specific situation may elicit negative body thoughts, and thus, subsequent changes in eating behavior. Conversely, other research suggests that increased consumption of high-calorie foods among women aged 40 to 65 years old is significantly related to depressive symptoms (Jeffrey et al., 2009), which are associated with body dissatisfaction (Pinhas, Toner, Ali, Garfinkel, & Stuckless, 1999), indicating that body dissatisfaction may lead to increased food intake. Taken together, these studies suggest that fat talk may lead to changes in food consumption because of fat talk’s effect on body dissatisfaction; however, studies directly exploring the relationship between eating behavior and fat talk are virtually nonexistent within the literature.

**Fat Talk, Body Dissatisfaction and Individual Differences**

An examination of individual difference variables may further clarify the effects of fat talk on body dissatisfaction and eating behavior. One such variable in the eating disorder literature, dietary restraint, is characterized as the restriction of food intake for the purposes of losing weight (Stice, 1998). An ecological momentary assessment study suggested that negative body perceptions may lead to dietary restriction, in that women with high body dissatisfaction, relative to those with low body dissatisfaction, reported a greater increase in thoughts of dieting after engaging in appearance-related self-comparisons (Leahey, Crowther, & Ciesla, 2011). Similarly, another study found that women who focused on negative body shape and weight words such as “fat” reported increased body dissatisfaction and exhibited dietary restriction relative to a neutral condition (Smith & Rieger, 2009), further indicating a relationship between fat talk comments, body dissatisfaction and dietary...
restraint. Moreover, dietary restraint has also demonstrated differing effects on food consumption, in that a large effect was found for dietary restrainers (i.e., dieters) consuming more snacks than their low dietary restraint counterparts (Warren, Strauss, Taska & Sillivan, 2005). These data suggest that, in addition to feelings of body dissatisfaction, dietary restraint may also influence food consumption.

A second individual difference variable of interest is the personality trait of neuroticism, which is the tendency to view situations with a negative perspective and emotions (Costa & McCrae, 1992). Research examining neuroticism’s relationship with body related perceptions suggest some inconsistencies. Whereas some reported that women reporting high neuroticism experienced higher body dissatisfaction relative to the low neuroticism participants (Dalley, Buunk, & Umit, 2009; Roberts & Good, 2010), other research suggests that low neuroticism is associated with increased body dissatisfaction (Dionne & Davis, 2004). One study also reported that women with high neuroticism experienced larger shifts in body dissatisfaction from baseline to post-test after viewing thin fashion model images, and conversely, felt more satisfied with their bodies after viewing the heavier models (Roberts & Good, 2010). These results suggest that individuals reporting high neuroticism may be more influenced by their environment than those low on neuroticism, meaning that fat talk, being an environmental factor, may differentially influence individuals based on their functioning on this personality trait.

**Study Aims and Hypotheses**

Given the limited extant research specifically examining fat talk and its associations with body dissatisfaction, negative affect, self-esteem and subsequent eating behavior, the present study aimed to clarify these relationships using an experimental method. First, it was
hypothesized that exposure to fat talk (versus exposure to a neutral stimulus) would result in increased body dissatisfaction and reduced self-esteem relative to baseline measurements of these constructs. Second, it was hypothesized that exposure to fat talk, relative to a neutral stimulus, would result in increased negative affect and greater food consumption. Third, it was hypothesized that individual difference variables, such as self-esteem, dietary restraint and neuroticism, would moderate the relationship between condition type and body dissatisfaction. Thus, it was expected that condition type would interact with self-esteem, neuroticism and dietary restraint to predict body dissatisfaction. More specifically, it was expected that among those with low self-esteem, differences between condition types on body dissatisfaction would be significant; conversely, for those with high self-esteem, differences between condition types on body dissatisfaction would not be significant. It was also expected that for those with low neuroticism and low dietary restraint, condition type would have a smaller impact on body dissatisfaction, than for those with high neuroticism and dietary restraint.

**Study 1: Pilot Study**

**Method**

The purpose of this pilot study was to develop and identify an effective manipulation of fat talk. This was defined as a manipulation that represented the construct of fat talk, and was presented in manner relatable to college women.

**Participants**

Participants were women undergraduates ($N = 30$), age 19 to 22 years old ($M = 20.8$, $SD = .93$), from a small liberal arts college in the Northeastern region of the United States. All participants were volunteers. Participants were predominately seniors (63.3%), followed
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by juniors (23.3%), and sophomores (13.3%). Participants predominately identified as Caucasian (86.7%), followed by Latino/Latina, Native American, Asian, and Bi-racial/Multi-Racial (each at 3.3% of the sample).

Materials

Definition of fat talk. Participants were provided with a definition, developed using materials by Nichter (2000), which explained the phenomena of fat talk. This definition stated that fat talk was: “Conversations that involve degrading, or speaking negatively, about one’s own body, as well as the bodies of others. Examples of fat talk include comparing oneself to an ideal figure, in addition to directly degrading the body’s appearance, whether it be the entire being or specific parts. Conversations of fat talk do not only encompass these topics, but focus on any aspect of body weight and shape, and may be used to evaluate others or oneself.”

Fat Talk Video Clip #1. This three-minute-and-thirty-three-second video clip was taken from the MTV series, True Life, in which the experiences of young people are documented on camera. This clip was taken from the episode entitled, “I’m On a Diet”, and featured a young woman, age 18 years old (as she identified in the clip), and her mother, who were preparing for a beauty pageant. In this clip, the woman, as well as her mother, engaged in fat talk by commenting on specific parts of the daughter’s body that were not ideal for competition in the beauty pageant. These two women also spoke about the daughter’s need to lose weight, and specific behaviors for achieving the desired body size (see Appendix D for a link to the video clip).

Fat Talk Video Clip #2. This clip, taken from a video posted on YouTube.com, had a duration of four-minutes-and-nineteen-seconds, and featured an 18-year old woman (as she
identified in the video clip), who critiqued most aspects of her body. In addition to the critique, the woman also described specific behaviors she planned to use to lose weight and change her body shape, which included food restriction and an exercise plan (see Appendix D for a link to the video clip).

**Fat talk Vignette.** A short story was written by the principle investigator specifically to be used in this study. The vignette was developed by consulting with undergraduate eating behavior research assistants on fat talk comments used in their social circles. Also, the research literature was consulted to confirm these conversations and situations. The vignette featured a female student, who was a fictional character, and detailed her experiences during one day of the academic year. Various situations that are encountered in a student’s day-to-day life were presented, including wardrobe decisions, a lunchtime meal in the cafeteria, watching television, and an interaction at a social event. In each of these situations, conversations of fat talk were featured, in which a body part was critiqued, food intake was discussed or comments were made about body size and shape. Also included in this vignette were photographs to provide a visual representation of the situations described in the story (see Appendix B).

**Neutral Video Clip #1.** This video clip, lasting three-minutes-and-thirty-three-seconds, was selected from a video posted on YouTube.com, from the television series, *Gilmore Girls*. The clip featured a conversation between a mother and daughter, and did not include any comments about the body or food related topics (see Appendix D for a link to the video clip).

**Neutral Video Clip #2.** This video clip was taken from a post on YouTube.com, in which a young woman, aged 23 years old, gave a review of the *Kindle* reader. The clip lasted
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for four-minutes-and-nineteen-seconds, and did not include any comments about body size and shape, or food related topics (see Appendix D for a link to the video clip).

**Neutral Vignette.** A short story was written by the principle investigator specifically to be used in this study. The vignette featured the same fictional female college student as in the fat talk vignette, and included the same situations, but the conversations incorporated did not mention any topics related to appearance, the body, or food. Photographs were also included to provide visual representations of the situations described in the vignette (see Appendix C).

**Assessment of the stimuli.** After each stimulus was viewed, participants were presented with five questions to assess the stimulus’ adherence to the concept of fat talk, and how well the college female could relate to the situations presented (see Appendix A). Additionally, after all six stimuli were viewed, participants were asked to select which stimuli best presented fat talk in the most relatable manner, as well as which stimuli presented the most neutral situation in the most relatable manner. A list of all six stimuli was provided for each question, and participants were asked to explain the reasoning for their choices through an open-ended response question.

**Demographic Information Sheet.** Participants self-reported their age, gender, class year, and ethnic/racial background.

**Procedure**

The pilot study was presented in an online SNAP survey. Participants completed the study in groups of one to twelve individuals, and were instructed to bring their own headphones to hear the audio components of the video clips. The presentation order of the six stimuli was randomized for each participant. Consent and debriefing information were
presented on the computer, and the researcher was available for questions and comments immediately following completion of the study.

Results

As shown in Table 1, the fat talk vignette and the neutral vignette had the highest mean scores on the questions assessing the extent to which 1) the situations presented happened previously to the participant, 2) the participant could identify with the protagonist, and 3) the scenario was life-like. The fat talk vignette and neutral vignette had the second-to-highest mean scores on the question assessing its adherence to the concept of fat talk. Additionally, the fat talk vignette was selected most frequently as the stimulus that best presented fat talk in the most relatable manner, and the neutral vignette was selected most frequently as the most neutral stimulus (see Table 2). Thus, these manipulations were selected for use in the main study.

Discussion

The pilot study conducted as part of this study found that, although the fat talk vignette did not receive the highest rating of adherence to fat talk, it did receive a high rating of fat talk (i.e. an average of 4.51 out of a 5-point Likert scale), as well as the highest ratings of relatability. This indicated that the fat talk vignette had the highest overall score among the potential manipulations of fat talk and was selected to be used as the manipulation in the experimental condition of the main study. The same trend was observed with the neutral vignette, resulting in the neutral vignette being selected as the neutral condition manipulation. Despite these manipulations not having the highest scores of fat talk, they were selected because previous research has been concerned that if the contents of fat talk are very prominent in a manipulation, that participants may be more likely to guess the purpose of the
study, and therefore, possibly alter their natural behaviors and responses accordingly (Stice, Maxwell & Wells, 2003). As an attempt to minimize this concern, the vignettes were written so that the situations were normal and these were situations that could potentially be experienced in day-to-day life. The aim was that participants could relate to the vignette characters, and that these relatable situations would lead participants to reflect on their own experiences involving fat talk.

**Study 2: Main Study**

**Method**

**Participants**

Participants were women undergraduates \((N = 116)\) age 18 to 23 years old \((M = 19.00, SD = 1.20)\), from a small liberal arts college in the Northeastern region of the United States. Participants were predominately first year students (65.5%), followed by sophomores (21.5%), seniors (8.6%), and juniors (3.4%); one participant (< 1%) did not identify her class year. Participants identified predominately as Caucasian (83.6 %), followed by Asian (4.3%), Black/African American (3.4%), Latino/Latina (3.4%), Bi-Racial/Multi-Racial (3.4%), Native Hawaiian/Pacific Islander (< 1%), and Other (< 1%). All participants were compensated for their time with either credit towards a Psychology Department Research Requirement, or with $10.

**Measures**

*Demographic Information Sheet.* Participants self-reported sex, age, height, weight, year in school, and ethnic/racial background.

*Positive Affect and Negative Affect.* The Positive and Negative Affect Scale (PANAS) was developed by Watson, Clark, and Tellegen (1988). This measure includes two
ten-item scales assessing both positive and negative affect. The subscale of positive affect (PA) includes the items: Active, Alert, Attentive, Determined, Enthusiastic, Excited, Inspired, Interested, Proud and Strong. The subscale of negative affect (NA) includes the items: Afraid, Ashamed, Distressed, Guilty, Hostile, Irritability, Jittery, Nervous, Scared and Upset. Each item is rated on five-point Likert scale (1=very slightly and 5=extremely) with higher scores indicating higher feelings of positive or negative affect. Previous research has supported the reliability and validity of this scale, particularly for state-dependent directions assessing negative and positive mood “at this moment” (Watson, Clark, & Tellegen, 1988). Internal consistency (i.e. Cronbach’s alpha) for the PANAS in the present study was .77 for negative affect and .88 for positive affect.

**Neuroticism.** The NEO-Five Factory Inventory (NEO-FFI) was developed by Costa and McCrae (1992). The NEO-FFI is a 60-item measure assessing the personality traits of: Openness, Conscientiousness, Extraversion, Agreeableness and Neuroticism. This study employed the use of the 12-item Neuroticism subscale, which measures an individual’s tendency to perceive and dwell on negative aspects of events and situations. Previous research has demonstrated that the five subscales included in this measure have reliability scores between .86 and .95 (Roberts & Good, 2010). Internal consistency for the NEO-FFI-Neuroticism subscale in the current study was .85.

**State-Dependent Self-Esteem.** The State Self-Esteem Scale (SSES) was developed by Heatherton and Polivy (1991). This 20-item scale assesses state-dependent self-esteem. It is aimed at detecting small, short-lived shifts or alterations in self-esteem, including self-perceptions in the areas of performance, social abilities, and appearance. Items requested ratings of self-perceptions “at this moment” on a five-point Likert scale, with higher scores
indicating higher state dependent self-esteem. Previous research supports the discriminant validity of this scale (Heatherton & Polivy, 1991). Internal consistency of this scale in the present study was .92.

**Dietary Restraint.** The Dietary Intent Scale (DIS) was developed by Stice (1998). This nine-item questionnaire assesses an individual’s degree of restraint or restriction of food intake in the past six months for the purpose of losing weight. The three subscales included in this scale are: reduced intake of food, abstaining from eating, and consumption of low-calorie foods. Each item is rated on a 5-point Likert scale (1=Never and 5=Always), and higher scores indicate higher dietary restraint. A pilot study of this scale indicated that it has an internal reliability score of .94, and is highly correlated with other measures of dietary restraint including the Dutch Restrained Eating Scale (.92) and the Restraint Scale (.82). In the same study, this measure has been shown to be inversely related to food consumption measured in grams of fat (-.32) (Stice, 1998). Internal consistency for this scale in the present study was .87.

**Body Dissatisfaction.** The Eating Disorder Inventory, 3rd Edition (EDI-3) was developed by Garner (2004). This 64-item measure assesses psychological, as well as behavioral, features of eating pathology. The items are rated on a 6-point Likert scale (1=never and 6=always) with higher scores suggesting greater eating disturbances. The nine-item Body Dissatisfaction subscale was used independently in the present study, assessing negative feelings towards the body as a whole, as well as of specific body parts. Previous research has demonstrated that negative comments were significantly related to eating pathology (Bailey & Ricciardelli, 2010), and suggests that the scale demonstrates strong
internal consistency (Cronbach’s α = .91; Rodgers, Paxton, & Chabrol, 2009). Internal consistency of this scale in the present study was .89 for the Body Dissatisfaction subscale.

**Relationship Style.** The Relationship Questionnaire (RQ) was developed by Bartholomew and Horowitz (1991). This questionnaire presents participants with four different relationship styles, and asks them to select the style that best describes their own relationship style. Following, each relationship style was rated on a 7-point Likert scale with higher scores indicating greater correspondence to the participant’s general relationship style. Relationship style was not the focus of the present study, but it was included to assess a construct not related to body-related self-perceptions and eating behaviors, so that participants reported additional aspects of their self-perceptions, and would not guess that the study focused on body-related self-perceptions.

**Food Stimuli.** The food stimuli were modeled after Habhab, Sheldon, and Loeb (2009). The food stimuli were comprised of standardized, pre-measured quantities of the following foods: Two bowls were presented with 300g of plain chocolate M&Ms, and 90g of Original Pringles. These foods were chosen to be consistent with past research investigating food consumption (Habhab, Sheldon, & Loeb, 2009; Warren, Strauss, Taska & Sillivan, 2005). The density of M&Ms and the density of Pringles is not the same, and as such, require different quantities to fill the same sized bowl. Thus, so that each bowl appeared to be equally full, the amount of each food presented was not the same. It was important that these bowls appeared to be equally full because research suggests that amount of food presented affects the amount of food participants consume, in that more food presented resulted in increased food intake (Rolls, Roe & Meengs, 2006). Food consumption was measured by weighing the food bowls after the experiment to calculate the amount of grams consumed,
which was then calculated into calories. The following formulas were used to calculate grams into calories: 1 gram of M&Ms = 5.00 calories and 1 gram of Pringles = 5.36 calories.

**Materials**

*Fat talk and Neutral Vignette.* The fat talk and neutral vignettes described in the pilot study were employed.

**Procedure**

Participants were recruited from the Psychology Department Participant Pool, and the study was advertised to the entire campus community using flyers. First, pre-test data was collected from participants via an online survey, which included: the Eating Disorder Inventory-Body Dissatisfaction Subscale, the State Self-Esteem Scale, and the Relationship Questionnaire. Participants then came into the laboratory, and were randomly assigned to either the fat talk or neutral condition. After obtaining informed consent, participants completed the study online via a SNAP survey, while being concurrently presented with the food stimuli. The online survey first exposed participants to either the fat talk or neutral manipulation, and then participants completed all measures in a randomized order. In order to explain the food stimuli and to prompt consumption of the food, participants were asked to complete a taste test for each food. All study timeslots were conducted between 2pm and 4pm. Each participant completed the study individually in a room, and each was debriefed individually by the principal investigator (see debriefing script in Appendix E).

**Results**

**Hypothesis 1:** Exposure to fat talk (versus exposure to a neutral stimulus) would result in increased body dissatisfaction and reduced self-esteem relative to baseline measurements of these constructs. Descriptive statistics for each measure are reported in
Table 3 and the correlations between the study measures are reported in Table 4. Two independent means t-tests were conducted to evaluate potential differences between the fat talk and neutral conditions on pre-test measures of body dissatisfaction and self-esteem. Results showed that differences between the two conditions on body dissatisfaction, \( t(111) = -1.24, p = .21, d = .23 \) and self-esteem, \( t(103) = 1.53, p = .13, d = .30 \), were not statistically significant. Participants reported body dissatisfaction scores between 0 and 36, and according to the Eating Disorders Inventory-3rd Edition (Garner, 2004), 84.1% reported low levels (0-21), 15% reported clinical levels (22-35), and < 1% reported clinically elevated levels (36-40) of body dissatisfaction. Two 2 (fat talk/neutral condition) x 2 (baseline/post-test scores) Mixed ANOVAs evaluated the differences between pre- and post-test scores for body dissatisfaction and self-esteem for both the fat talk and neutral conditions. Results showed that the differences between pre- and post-test scores for body dissatisfaction, \( F(1, 108) = .86, p = .36, \text{partial-} \eta^2 = .01 \), and self-esteem, \( F(1, 95) = .03, p = .86, \text{partial-} \eta^2 < .001 \), were not statistically significant for either condition type. The observed power for the analysis involving body dissatisfaction was .15, and the observed power for the analysis involving self-esteem was .05.

**Hypothesis 2:** Exposure to fat talk, relative to a neutral stimulus, would result in increased negative affect, and greater food consumption. Independent means t-tests were conducted to evaluate the effects of condition type on negative affect and total amount of calories consumed during the experiment. Three participants reported having knowledge of the measurement of food consumption, and an independent-means t-test found that the difference in total calories consumed between these participants and the participants without knowledge of food measurement was not statistically significant, \( t(113) = -.80, p = .43, d = \)
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.50. However, due to the medium effect size for this analysis, a follow-up ANCOVA was conducted to evaluate whether or not there was a significant effect for the covariate (i.e. knowledge of food measurement). This result was not statistically significant, $F(1, 112) = .71, p = .40$, $partial-\eta^2 = .01$; therefore, these individuals were included in subsequent food consumption analyses. The total amount of calories consumed ranged from 0 calories to 956.64 calories, but the difference between condition type on the total amount of calories consumed was not significant, $t(113) = -.93, p = .35, d = .17$. The observed power for this analysis was .45. Further, two outliers were excluded from the food consumption analysis, but the difference between condition type on total calories consumed was still not significant, $t(111) = -.90, p = .37, d = .17$. The observed power for this analysis was .44. However, the fat talk and neutral conditions did differ significantly on negative affect, $t(112) = -2.39, p = .02, d = .45$, but interestingly, higher negative affect was reported in the control group ($M = 16.90, SD = 4.03$) compared to the experimental group ($M = 14.40, SD = 4.03$).

Hypothesis 3: The individual difference variables of self-esteem, dietary restraint and neuroticism would moderate the relationship between condition type and body dissatisfaction. Hierarchical multiple regression analyses (see Table 5) were used to test the hypothesized moderation effects of self-esteem, neuroticism, and dietary restraint on the relationship between condition type (fat talk and neutral) and body dissatisfaction. Moderator variables were raw scores of the post-test measures, and were centered prior to analysis. A separate regression model was evaluated to test the moderation effects of each individual variable. Results do not support a moderation effect of self-esteem or neuroticism in the relationship between condition type and body dissatisfaction. However, the results do show that dietary restraint was a significant moderator of the relationship between condition type
and body dissatisfaction, in that there was an interaction between dietary restraint and condition type to predict body dissatisfaction. More specifically, there was little difference between condition groups in body dissatisfaction scores for those participants who reported higher dietary restraint, whereas among those reporting lower dietary restraint, there was a larger difference in body dissatisfaction dependent on condition type, with the fat talk condition reporting higher body dissatisfaction compared to the neutral condition (see Figure 1).

Discussion

Previous research has demonstrated that fat talk comments, which is one form of negative body communication, made by peers has an effect on self-perceptions, mood and eating behaviors (Thompson et al., 2007; Stice, Maxfield, & Wells, 2003; Pinhas, Toner, Ali, Garfinkel, & Stuckless, 1999), and as fat talk is so common and normalized in a college setting, it is important to investigate the consequences of these negative body conversations. Results from the main study found that exposure to fat talk, relative to a neutral stimulus, did not result in increased body dissatisfaction or reduced self-esteem compared to baseline, indicating that being exposed to fat talk did not significantly affect these constructs. These findings are in contrast to previous research which demonstrates a significantly positive relationship between frequency of fat talk conversations and body dissatisfaction (Salk & Engeln-Maddox, 2011). Similarly, other research has shown that exposure to fat talk in an experimental setting resulted in increased body dissatisfaction, with participants reporting levels within the clinical range (Stice, Maxfield & Wells, 2003), whereas a majority of participants in the current study reported low levels of body dissatisfaction. This contradiction may be explained, in part, by methodological variability, in that Stice, Maxfield
and Wells (2003) presented fat talk with a thin-figured female confederate, while the present study employed a fat talk vignette manipulation. Additionally, the fat talk vignette presented images of a thin-model (i.e. thin-ideal images) and included comments that compared the thin-ideal to the female vignette character, in which the character expressed the desire to look like the model. Present findings are also in contrast to prior research that suggests a significant association between exposure to thin-ideal media and decreased self-esteem (Hawkins et al., 2004). The present study results do not support the first hypothesis that being exposed to fat talk would result in increased body dissatisfaction and reduced self-esteem, but an important limitation in interpreting these findings is that the observed power estimates were low, which may limit the ability to detect differences in these variables across experimental conditions.

The second hypothesis, predicting that the fat talk condition would increase food consumption and negative affect compared to the neutral condition was partially supported by the current study. It was found that the condition types did not differ significantly on total calories eaten, which is contrary to previous research suggesting that viewing diet commercials is associated with increased food consumption (Warren et al., 2005), or that increased body awareness is related to restricted food intake (Sentyrz & Bushman, 1998). The topic of dieting was included in the fat talk vignette, which is similar to content discussed in a diet commercial selling its weight loss plan, but the effects on food consumption were not observed. However, participants in the present study did exhibit substantial variability in the total number of calories consumed, which indicates that variability in food consumption may be detected in as short period of time. One explanation for these findings is that because body dissatisfaction was not differentially affected by
condition type, food consumption also did not differ between the two groups. However, it is important to note that, similar to body dissatisfaction and self-esteem analyses, the observed power in the food consumption analysis was low, indicating that the relationship between fat talk and food intake requires further examination.

Participants in the fat talk versus neutral conditions exhibited differences in reported negative affect, but, interestingly, it was the neutral condition that reported higher negative affect than the fat talk condition. Although some prior research suggests that fat talk may be related, in certain situations, to reduced negative emotions, this was a small effect (Gapinski, Brownell, & LaFrance, 2003), and typically, research suggests that fat talk is associated with negative emotions (Salk & Engeln-Maddox, 2011). One possible explanation for this finding is that, as fat talk is argued to be a form of social conformity (Tompkins et al., 2009) and a way for women to feel as though they are not alone in having negative body perceptions (Salk & Engeln-Maddox, 2011), participants may have empathized with the characters of the fat talk vignette, and been able to identify similar experiences of their own, which may have resulted in less negative emotions after exposure. Alternatively, it is also possible that the neutral vignette included content which increased negative affect, in that one character discussed finishing a difficult exam and feeling as though she did not perform well, in addition to another character stating she needed to start a writing assignment. Participants may have related to these stressful or undesirable school-related experiences, leading to increased negative affect.

The third hypothesis proposed that self-esteem, neuroticism and dietary restraint would moderate the relationship between condition type and body dissatisfaction. This hypothesis was only partially supported by the current study, as differing levels of self-
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esteem and neuroticism did not significantly influence the relationship between condition
type and subsequent body dissatisfaction. These are contrary to past research, which suggests
that both self-esteem (Tiggemann, 2005) and neuroticism (Dionne & Davis, 2004)
significantly impact body dissatisfaction, and that neuroticism significantly moderated the
relationship between viewing thin-ideal images and body esteem (Robert & Good, 2010).
The overall model for dietary restraint was supported, in that those with varying levels of
dietary restraint reacted differently, in terms of body dissatisfaction, to the fat talk and neutral
conditions; but it was contrary to expectations, in that differences in body dissatisfaction
were observed primarily among the high dietary restraint participants. One possible
explanation for this unexpected finding is that because individuals with high dietary restraint
may already think negatively about their bodies (Leahey, Crowther, & Ciesla, 2011), the
experimental conditions did not change their pre-existing negative body perceptions, whereas
among those with low dietary restraint, the fat talk manipulation may have triggered feelings
of body dissatisfaction; but future research is needed to further clarify this relationship. The
present findings are, however, consistent with previous research, in that high dietary restraint
is reliably associated with high body dissatisfaction (Cachelin, Streigel-Moore & Paget,
1997), but the interaction between condition type and dietary restraint to predict body
dissatisfaction is a novel finding. It highlights the importance of pre-existing individual traits,
and suggests that traits may significantly influence they way an individual responds to fat
talk.

Limitations and Future Directions

Although this study offers an important contribution to the limited research on fat
talk, interpretations are limited by aspects of the study method and measurement error. First,
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one limitation is that there is no existing standardized experimental manipulation of fat talk, and thus, manipulations employed in the present study, although pilot-tested, are not empirically validated materials. This suggests the possibility that presenting fat talk through a vignette may not be a sufficiently potent manipulation for exposing participants to fat talk. Further, body objectification is a prevalent concept within the American media, in that pictures of women which focus on the body are regularly featured (Fredrickson & Roberts, 1997). It is possible that the picture of Jessica Alba included in the fat talk vignette, in which she is posing seductively in a bathing suit, was exposing participants to body objectification, as opposed to depicting the thin-ideal that women may use in self-comparison behaviors; further indicating that the vignette was possibly not the most appropriate manipulation of fat talk. A related limitation, specific to the pilot study, is that participants were able to choose more than one answer in the rating scales for each stimuli assessment question. It is possible that participants may have responded differently if they were restricted to only one selection for the fat talk and neutral manipulations. Thus, this may have resulted in selection of a different fat talk and/or neutral manipulation for the main study.

The current study is also limited in that a self-report method was used to gather information from participants. Being that the questionnaires were administered via an online survey, it is possible that participants answered questions quickly without adequately attending to the items, which may raise concerns regarding the validity of these measurements (Elgar, Roberts, Tudor-Smith & Moore, 2005). Additionally, research suggests that participants may engage in socially desirable responding on self-report questionnaires by not respond honestly, but by adhering to social norms (Davis, Thake, & Vilhena, 2010), which could potentially skew study results. For instance, research suggests
that the most common topic of fat talk includes the discussion of others’ appearance (Ousley, Cordero, & White, 2008), indicating that individuals are aware of the appearance of others, and may engage in self-comparison behaviors. It is possible that in the current study, participants compared their own appearance with that of the experimenter, which may have led participants to alter their natural responses to items concerning self-perceptions, such as body dissatisfaction.

The present study suggests several possible directions for further examination of fat talk. One direction is to focus research efforts on developing a standardized manipulation of fat talk to be used in an experimental setting. This research, however, is obfuscated by the larger question of: how do we measure the effects of fat talk in a research setting when it is so pervasive in day-to-day life? Similarly, there is a question of if the neutral condition is truly neutral, even if these individuals have also been previously exposed to fat talk in their natural environments. Possibly, research could employ longitudinal or repeated exposure methods to account for these questions, in that multiple measures of fat talk are gathered, which may create greater confidence in study findings.

Future investigations of fat talk may also focus on collecting data from a more demographically diverse sample of individuals. In particular, future research should include clinical samples of individuals with eating disorders, so that findings may be applied to treatment settings, as well as in improving prevention programs. Similarly, participant samples that are more racially and ethnically diverse should be recruited, whereby the similarities and differences in the effects of fat talk on varying populations may be understood; this information could also facilitate the development of prevention and treatment programs for specific populations. Research examining fat talk among men is also
required as men also experience high levels of body dissatisfaction and appearance-related concerns (Mellor, Fuller-Tyszkiewicz, McCabe & Ricciardelli, 2010), suggesting that this population is also susceptible to negative appearance and body related comments. Thus, it is important to include men in the fat talk literature, to identify the topics of their fat talk conversations, as well as the effects fat talk may have on this particularly understudied population within the eating disorder literature.

Research investigating fat talk should also seek to clarify the nature of the fat talk construct. For example, it remains unclear whether the reason for engaging in fat talk is to feel accepted into a given social group (i.e. social conformity), or whether it is a form of viewing the body as an object to be changed (i.e. self-objectification); or a combination of the two. Similarly, research should examine the role fat talk has within an existing social group, in that women have reported that fat talk provided an opportunity to support their friends, and was used to enhance group cohesion and community (Salk & Engeln-Maddox, 2011), suggesting that fat talk may promote, and possibly, improve group unity.

Additionally, researchers should investigate the distinction between engaging in fat talk and exposure to fat talk, and their potential differential effects on body dissatisfaction, self-esteem, mood and eating behavior. It is possible that this distinction may parallel that of awareness versus internalization of the thin-ideal, in that internalization refers to adopting the ideas of the thin-ideal as beliefs (i.e. believing and engaging in fat talk conversations), whereas awareness refers only to having knowledge about the thin-ideal (i.e. being a passive listener of fat talk conversations). Although previous research has not yet investigated this distinction, one study suggests that a prevention program which combats the thin-ideal and fat talk significantly decreased body dissatisfaction, thin-ideal internalization and bulimic
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behaviors in women who were at low and high risk for eating problems (Black-Becker et al., 2008). Potentially, these groups may be equivalent to women who hear and participate in fat talk conversations, respectively, which indicates that because both groups benefitted from this intervention, then possibly both groups also may experience significant effects of fat talk. This information may inform the literature that participatory populations (in fat talk) are at an increased risk for disordered eating, or provide evidence that fat talk may be a risk factor for all women because it is so prevalent in regular, day-to-day conversations.

Longitudinal investigations of fat talk would allow us to understand its long-term effects, and to ascertain whether it can be characterized as a risk factor or consequence of eating disorders. These methods may also be useful in examining how the content and frequency of fat talk may change throughout the life-span, and thus, aid in creating more developmentally appropriate programs for targeted populations.

Finally, cross-cultural investigations may help clarify the nature and consequences of fat talk in other cultures, and identify whether or not these conversations are etiological factors for the development and maintenance of eating disorders. It may be argued that since the concept of “fear of fatness”, or the intense fear of gaining weight and becoming fat, is culturally-bound to Western society (Banks, 1992), that perhaps, fat talk may not be as prevalent in other nations. Future studies should also explore fat talk in an interpersonal context as interpersonal problems may lead to psychological distress and result in maladaptive behaviors (Horowitz, 2004). More specifically, research suggests that individuals with disordered eating behaviors exhibit significant interpersonal problems (Hopwood, Clarke & Perez, 2007), and as fat talk always involves interacting with others (Nichter, 2000), it is important that research clarify how it is perceived by individuals.
involved in a fat talk interaction. Thus, research examining fat talk from an interpersonal perspective may help us understand the very nature of fat talk as a social and interpersonal phenomenon. Given that fat talk is a normalized and socially acceptable way to communicate about body shape and weight, it is important that future investigations clarify the ways in which it may affect individuals across varying populations and situations.
References


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### Table 1

Mean scores and standard deviations for all potential manipulations tested in the pilot study

<table>
<thead>
<tr>
<th>Stimulus</th>
<th>FT Score (SD)</th>
<th>Happen Before (SD)</th>
<th>Identify (SD)</th>
<th>Life-Like (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fat Talk</td>
<td>4.51 (0.58)</td>
<td>1.92 (.91)</td>
<td>2.02 (.90)</td>
<td>3.50 (.94)</td>
</tr>
<tr>
<td>MTV clip</td>
<td>4.70 (0.75)</td>
<td>2.63 (1.16)</td>
<td>2.63 (1.07)</td>
<td>3.86 (1.01)</td>
</tr>
<tr>
<td>Fat Talk</td>
<td>4.51 (0.68)</td>
<td>3.55 (0.83)</td>
<td>3.23 (1.14)</td>
<td>4.40 (0.77)</td>
</tr>
<tr>
<td>YouTube clip</td>
<td>1.18 (0.46)</td>
<td>1.55 (0.85)</td>
<td>2.16 (1.21)</td>
<td>3.23 (1.22)</td>
</tr>
<tr>
<td>Neutral Gilmore</td>
<td>1.30 (0.70)</td>
<td>4.15 (0.98)</td>
<td>4.08 (0.83)</td>
<td>4.57 (0.67)</td>
</tr>
</tbody>
</table>

Note: FT Score refers to the question, Keeping in mind the definition given in the beginning of the study, please indicate to what extent this scenario accurately showcases 'fat talk'; Happen Before refers to the question, How much does this scenario resemble situations you (or someone you know) have experienced before?; Identify refers to the question, How much do you identify with the protagonist in this scenario?; Life-Like refers to the question, How life-like is this scenario?.

All questions were rated on a 5-point scale. Bold numbers indicate the highest score for the given question. It must be noted that among the neutral manipulations, a lower score is desired, which indicates low levels of fat talk (i.e. neutral situations).
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Table 2

*Frequency of each stimulus being characterized as the best for each condition type*

<table>
<thead>
<tr>
<th>Stimulus</th>
<th>Fat Talk</th>
<th>Neutral</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fat Talk MTV clip</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>Fat Talk YouTube clip</td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td>Fat Talk Vignette</td>
<td>21</td>
<td>4</td>
</tr>
<tr>
<td>Neutral Kindle clip</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Neutral Gilmore Girls clip</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Neutral Vignette</td>
<td>0</td>
<td>19</td>
</tr>
</tbody>
</table>

*Note: Fat Talk refers to the fat talk or experimental condition; Neutral refers to the neutral or control condition.*
Table 3

Descriptive statistics by condition type

<table>
<thead>
<tr>
<th>Measure</th>
<th>Fat Talk</th>
<th>Neutral</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>M (SD)</td>
</tr>
<tr>
<td>Range</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDI-BD</td>
<td>13.26 (7.51)</td>
<td>14.54 (9.26)</td>
</tr>
<tr>
<td>SSES</td>
<td>70.44 (11.68)</td>
<td>68.61 (12.82)</td>
</tr>
<tr>
<td>PANAS-NA</td>
<td>14.82 (4.29)</td>
<td>17.06 (5.48)</td>
</tr>
<tr>
<td>PANAS-PA</td>
<td>25.84 (8.23)</td>
<td>26.21 (6.73)</td>
</tr>
<tr>
<td>DIS</td>
<td>21.48 (7.04)</td>
<td>20.04 (6.14)</td>
</tr>
<tr>
<td>NEO-FFI-N</td>
<td>35.00 (7.96)</td>
<td>35.91 (8.57)</td>
</tr>
<tr>
<td>Food Consumption</td>
<td>253.62 (194.47)</td>
<td>288.33 (204.26)</td>
</tr>
</tbody>
</table>

Note: EDI-BD refers to the Eating Disorder Inventory-Body Dissatisfaction subscale; SSES refers to the State Self-Esteem Scale; PANAS-NA refers to the Positive and Negative Affective Scale-Negative Affect subscale; PANAS-PA refers to the Positive Affect subscale; DIS refers to the Dietary Intent Scale, measuring dietary restraint; NEO-FFI-N refers to the Neo Five Factor Inventory-Neuroticism subscale. Food Consumption refers to the total amount of food consumed, reported in calories.
## Table 4

**Correlations between study measures**

<table>
<thead>
<tr>
<th></th>
<th>EDI-BD</th>
<th>SSES</th>
<th>PANAS-NA</th>
<th>PANAS-PA</th>
<th>DIS</th>
<th>NEO-FFI-N</th>
<th>Food Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDI-BD</td>
<td>----</td>
<td>- .63**</td>
<td>.16</td>
<td>- .26</td>
<td>.42**</td>
<td>.27**</td>
<td>.05</td>
</tr>
<tr>
<td>SSES</td>
<td>----</td>
<td>- .47**</td>
<td>.45**</td>
<td>- .37**</td>
<td>- .67**</td>
<td>.08</td>
<td></td>
</tr>
<tr>
<td>PANAS-NA</td>
<td>----</td>
<td>- .01</td>
<td>.26**</td>
<td>.48**</td>
<td>- .04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PANAS-PA</td>
<td>----</td>
<td>- .00</td>
<td>- .30**</td>
<td>.12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIS</td>
<td>----</td>
<td>.21*</td>
<td>- .03</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NEO-FFI-N</td>
<td>----</td>
<td></td>
<td></td>
<td>- .03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food Consumption</td>
<td>----</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: EDI-BD refers to the Eating Disorder Inventory-Body Dissatisfaction subscale; SSES refers to the State Self-Esteem Scale; PANAS-NA refers to the Positive and Negative Affective Scale-Negative Affect subscale; PANAS-PA refers to the Positive Affect subscale; DIS refers to the Dietary Intent Scale, measuring dietary restraint; NEO-FFI-N refers to the Neo Five Factor Inventory-Neuroticism subscale. Food Consumption refers to the total amount of food consumed, reported in calories.**

** p < .01; * p < .05.
## Table 5

*Hierarchical multiple regression: Regression table for the proposed moderation models*

<table>
<thead>
<tr>
<th>Variable</th>
<th>b (s.e.)</th>
<th>β</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Condition</td>
<td>-0.28 (1.23)</td>
<td>-.02</td>
<td>-.23</td>
<td>.822</td>
</tr>
<tr>
<td>SE</td>
<td>-0.27 (0.16)</td>
<td>-.41</td>
<td>-1.70</td>
<td>.093</td>
</tr>
<tr>
<td>Condition * SE</td>
<td>-0.10 (0.10)</td>
<td>-.23</td>
<td>-.95</td>
<td>.345</td>
</tr>
<tr>
<td><strong>Model 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Condition</td>
<td>0.65 (1.54)</td>
<td>.04</td>
<td>.43</td>
<td>.671</td>
</tr>
<tr>
<td>Neuro</td>
<td>-0.10 (0.30)</td>
<td>-.09</td>
<td>-.32</td>
<td>.753</td>
</tr>
<tr>
<td>Condition * Neuro</td>
<td>0.24 (0.19)</td>
<td>.37</td>
<td>1.26</td>
<td>.211</td>
</tr>
<tr>
<td><strong>Model 3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Condition</td>
<td>2.15 (2.23)</td>
<td>.13</td>
<td>1.50</td>
<td>.138</td>
</tr>
<tr>
<td>DR</td>
<td>-1.18 (0.33)</td>
<td>-.14</td>
<td>-.55</td>
<td>.586</td>
</tr>
<tr>
<td>Condition * DR</td>
<td>0.53 (0.23)</td>
<td>.61</td>
<td>2.25</td>
<td>.021*</td>
</tr>
</tbody>
</table>

*Note: * p < .05; SE refers to self-esteem; Neuro refers to neuroticism; DR refers to dietary restraint.*
Figure 1

Dietary restraint moderating the relationship between condition type and body dissatisfaction

Note: Dietary restraint was not split into ‘high’ and ‘low’ groups for analyses. Percentiles were calculated strictly to show a clearer visual representation of the findings.
Appendix A

**Pilot Study Assessment Questions**

After each stimulus, participants will answer the following questions.

1. Keeping in mind the definition given in the beginning of the study, please indicate to what extent this scenario accurately showcases “fat talk”.
   
<table>
<thead>
<tr>
<th>Not an example of fat talk</th>
<th>Poor example of fat talk</th>
<th>Okay example of fat talk</th>
<th>Good example of fat talk</th>
<th>Excellent example of fat talk</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

2. How much does this scenario resemble situations you (or someone you know) have experienced before?

<table>
<thead>
<tr>
<th>This has never happened to me before.</th>
<th>This has happened to me only once or twice before.</th>
<th>This has happened to me a few times before.</th>
<th>This has happened to me multiple times before.</th>
<th>This happens frequently.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

3. How much do you identify with the protagonist in this scenario?

<table>
<thead>
<tr>
<th>I cannot identify at all with this woman.</th>
<th>I can identify little with this woman.</th>
<th>I can identify somewhat with this woman.</th>
<th>I can identify fairly well with this woman.</th>
<th>I can identify very well with this woman.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

4. How life-like is this scenario?

<table>
<thead>
<tr>
<th>This would never happen in real life.</th>
<th>There is a slight chance this would happen in real life.</th>
<th>This might happen in real life.</th>
<th>There is good chance this would happen in real life.</th>
<th>This happens frequently in real life.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

5. Please explain the reasoning behind your ratings for the previous questions.
Fat Talk Vignette

Bethany Richards is a sophomore English major, here, at Dickinson College. She is 5’6” with brown hair and green eyes, and she is within the normal weight range for her height. A typical day in the life of Bethany includes classes, lunch dates with friends, and parties, just like any other college sophomore. Getting ready in the morning always involves rushing around to get to class on time. Some days Bethany has trouble choosing what to wear, and ends up studying herself in the mirror to decide which outfit looks the best. Certain times, she is left wondering if the jeans she has on makes her look like she has “love handles”, and asks her roommate, “Do I look fat in these jeans?”

“Definitely not! You’re so lucky that your jeans actually fit you…mine are really tight on my thighs and make them look huge!”, responds her roommate, Kristy.

After an uneventful morning of classes, Bethany meets her roommate, and two friends, Mikayla and Courtney, for lunch. On a Friday afternoon at 12:30pm, the caf is crazy (as usual), and the lines for food are ridiculously long. Finally, able to sit down to eat, Kristy exclaims, “Oh my God! While I was waiting in line at the Grill, this girl walked by me with a plate FULL of mozzarella sticks and French fries! I can’t believe someone would eat all of that. All I have to say is, she must work out a lot because if she didn’t, she’d be so fat…”

“Ew, I know it grosses me out when I see people with food plates like that”, says Courtney.

“Yea, that’s one reason why I usually just have a salad for lunch. It’s actually part of this new diet I’m doing. I want to lose at least 10 pounds by the end of the semester”, adds Mikayla.

“Go Mikayla! That’s awesome!”’, Bethany applauds, “I wish I had as much control as you…I feel like I’m getting so fat from eating this caf food”.

The girls continue their meal, talking about potential plans for their Friday night. Eventually deciding to go to a friend’s cocktail party, they part ways, and make plans to meet again for dinner.

After dinner, Bethany and Kristy have some extra time before having to get ready for the night, and decide that instead of doing homework, they will watch TV.

“So I know I really shouldn’t, but I think I’m going to be a total fatty and have some chocolate while we watch TV”, says Bethany.
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While flipping through the channels, they come across an episode of “The 50 Hottest Beach Bodies”, and the show was currently featuring Jessica Alba.

“Uhh just look at her...she’s so gorgeous”, cries Bethany, “She has like the perfect body. Tiny waist, flat stomach and toned legs, and I have the opposite! How can I get that body?!”

The two discussed some of the fad diets they’ve heard people use, such as the all-protein and no carb diets, and then proceed to change the channel.

Later that night, Bethany, Kristy, Mikayla, and Courtney get ready in their cocktail dresses, and go to a friend’s party. While there, Bethany happens to see a girl she was pretty friendly with in her First Year Seminar.

“Hey Valerie! I haven’t seen you in forever!” Bethany says, giving her a hug, “How have you been?!”

“Hey! I’ve been pretty good. How about you?” Valerie replies.

“Good, good. You know you really look great, have you lost weight?” asks Bethany.

“Um, I’m not sure. Maybe a little bit.”

“Well you look really cute. Your top makes you look so skinny!”

“Oh well, thanks!” Valerie says with a smile.

The girls continue to talk about classes this semester, and reminisce about the funny times in class together. Bethany and her friends continue to mingle and socialize with everyone, until people slowly start to leave, at which point they decide they’re tired too, and should probably head back. Coming back to the room, Bethany’s aching feet were glad to be free from her high heeled shoes, and she couldn’t wait to put on her comfy pajamas and sleep in the next day.

Note: Bethany is not an actual Dickinson College student; she is a fictional character.
Neutral Vignette

Bethany Richards is a sophomore English major, here, at Dickinson College. She is a 5’6” Italian-American woman with brown hair and green eyes. A typical day in the life of Bethany includes classes, lunch dates with friends, and parties, just like any other college sophomore. Getting ready in the morning always involves rushing around to get to class on time. Some days Bethany has trouble choosing what to wear, and ends up studying herself in the mirror to decide which outfit to wear. Certain times, she is very indecisive and asks her roommate, “Do you think I should wear this black sweater or green sweater? Is it cold enough for the green sweater today?”

“Hmmmm”, responds her roommate, Kristy, “I think it’s pretty cold out today – maybe go with the green?”

After an uneventful morning of classes, Bethany meets her roommate, and two friends, Mikayla and Courtney, for lunch. On a Friday afternoon at 12:30pm, the caf is crazy (as usual), and the lines for food are ridiculously long. Finally, able to sit down to eat, Kristy exclaims, “Oh my God! I just took an exam this morning in my math class, and it was really hard. I’m not sure if I want to get it back when my professor’s done grading them...”

“Ugh, I know. Math is definitely not my favorite subject either”, says Courtney.

“Yea, well that’s the reason why I decided to major in the Humanities, so I don’t have to take those crazy math classes!” adds Mikayla.

“Yea Mikayla. You and me both!”, Bethany laughs.

The girls continue their meal, talking about potential plans for their Friday night. Eventually deciding to go to a friend’s birthday party, they part ways, and make plans to meet again for dinner.

After dinner, Bethany and Kristy have some extra time before having to get ready for the night, and decide that instead of doing homework, they will watch TV.

“So I know I should really start writing my paper right now, but I just can’t seem to get motivated”, says Bethany.

While flipping through the channels, they come across a commercial for the newest technology in smartphones.

“Oh neat, look at that phone. You can video chat with people using wireless internet”, says Bethany, “That...”
could actually be useful for talking to friends and family who live far away.”

The two discussed some other useful applications, such as a phone’s ability to display the name and artist of a song playing on the radio, and then proceed to change the channel.

Later that night, Bethany, Kristy, Mikayla, and Courtney get ready and go to their friend’s party. While there, Bethany happens to see a girl she was friendly with in her First Year Seminar.

“Hey Valerie! I haven’t seen you in forever!” Bethany says, giving her a hug, “How have you been?!”

“Hey! I’m good. How about you?” Valerie replies.

“Good, good. Ooh are those new glasses?” asks Bethany.

“Yea they are. I just thought it was time for a change.”

“Well they really suit you - really cute!”

“Oh well, thanks!” Valerie says with a smile.

The girls continue to talk about classes this semester, and reminisce about the funny times in class together. Bethany and her friends continue to mingle and socialize with everyone, until people slowly start to leave, at which point they decide they’re tired too, and should probably head back. Coming back to the room, Bethany’s aching feet were glad to be free from her high heeled shoes, and she couldn’t wait to put on her comfy pajamas and sleep in the next day.

Note: Bethany is not an actual Dickinson College student; she is a fictional character.
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Appendix D

URL Links to the Pilot Study Video Clips

The fat talk video clip selected from the “I’m On a Diet” episode of MTV’s *True Life* can be accessed at http://www.mtv.com/videos/true-life-im-on-a-diet/1581320/playlist.jhtml.

The fat talk video clip selected from YouTube.com can be accessed at http://www.youtube.com/watch?v=mk_t-AxedqE.

The neutral video clip selected from an episode of *Gilmore Girls* can be accessed at http://www.youtube.com/watch?v=sml1Z3ziaHQ&feature=related.

The neutral video clip selected from YouTube.com, in which a woman reviewed the *Kindle* reader can be accessed at http://www.youtube.com/watch?v=Ypz_BhRuR0E&feature=related.
Verbal Debriefing Script

First, I would like to thank you for participating in this study today. I greatly appreciate your time. And I would now like to debrief you on a few aspects of my study.

As stated in the debriefing page displayed on your computer, the visual stimuli used in today’s study was pilot tested to ensure that the contents of the vignette and pictures were presented in a very relatable manner. This means that you were not exposed to materials that you would not have the chance of experiencing in your day-to-day life. Although previous research suggests that the effects of fat talk tend to be small to medium in size, I would still like to ask, are you experiencing any distress or discomfort as a result of participating in today’s study? This may include being upset about answering certain questions, or being bothered by the material included in the vignette.

(If yes): Here is how you can contact the Dickinson College Counseling Center (provide phone number). Would you like me to help you to contact them right now?

(If yes, and after hours/weekend): Here is how you can contact the Dickinson College Counseling Center during regular hours (provide phone number). However, since it is the weekend/after hours, we would need to contact the on-call staff clinician through DPS. Would you like me to help you to contact them through DPS right now?

Third, I would like to inform you that I have not told you everything about the current study, and I would like to debrief you on the specific purposes of the study you participated in today. Before I tell you what this was exactly, I would first like to explain why not all of the methods are disclosed to you in certain types of psychological research. The reason some studies choose not to tell participants about every aspect of their method is because we are concerned that this knowledge would cause participants to alter their natural, spontaneous thoughts, feeling and behaviors. Specifically, sometimes we are concerned that if participants know all about the study, they will act differently than they would in their day-to-day lives, which would not help researchers in understanding real-life situations. Do you understand why in certain instances, it may be important to not tell participants about certain aspects of a research study in the beginning of the experiment?

Now, I would like to explain to you specifically what information was not told to you in the beginning of today’s study. The title of this study is “Self-Perceptions and Responses to Visual Stimuli”, and while I was interested in your self-perceptions and responses to the vignette you read, I was interested in a specific aspect of the vignette that you were not informed about. In today’s study, you were randomized to one of two groups. One of these groups received the neutral vignette, which included conversations about neutral, everyday occurrences, such as classes, technology and social events. On the other hand, the second group in this study received a vignette which included conversations of “fat talk”. Fat talk refers to normalized conversations that focus on degrading the body—in other words, it
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involves talking negatively about either your own body, or the bodies of others, and may also include comments on how to change the body’s shape and/or size. As I am interested in the effects that fat talk may have on an individual, after reading the vignette, you were asked to answer a series of questionnaires, which asked about various aspects of your self-perception, or how you feel about yourself—in terms of your body, eating behavior, personality, self-esteem, and mood. In addition, you were asked to complete a taste test as part of the experiment today. As I am interested in food preferences, and how it relates to exposure to fat talk, I am ultimately interested in the effects fat talk has on quantity of food consumption. This aspect, measuring not only your food preferences, but also the amount of food that you ate, was the part of the study that was not told to you at the beginning of the study. Again, the reason I did not give you this information in the beginning was because I did not want you to alter or change your natural, normal eating behaviors—because if you did this, my study would not be doing a good job of measuring the true effects of fat talk, which is experienced in real-life. Do you now understand the nature of this study, and why I did not tell you about my measurement of food consumption? Now that you fully understand, may I still use your data in my study?

Another aspect of this study I would like to discuss, is that this experiment was not designed to test your personality, self-esteem, mood and overall character. I want to emphasize that there are no “correct answers” to this study. The goal is to examine your true feelings and reactions. Also, I am not interested in individual data, and will not be looking at everyone’s answers separately; I will be examining the data after it has been combined from all of the participants of this study.

One more important thing I would like to talk with you about today is to ask that you please do not discuss the nature of this study with any other students. As this is an ongoing study, and I am still collecting data, it is very important that every participant has the exact same experience, which includes not having knowledge about all aspects of the study before completing it. If you are asked about this study, please just tell people that the study involved viewing some visual images, and then answering questions about self-perceptions. Also, please do not make a big deal about there being a “secret aspect” of the study, because I do not want future participants to come in trying to “figure out” the study—which may also cause them to alter normal, natural behaviors, reactions and feelings.

Do you have any questions, comments or concerns you would like to discuss about this study?
Again, thank you very much for your participation in my study today.