

Running Head: (DON'T) DO IT FOR THE GRAM

(Don't) Do It For The Gram: Upward Social Comparison, Self-Discrepancy, and Body Shame

Among College-Aged Instagram Users

Gabrielle Wesseldyk

University of Michigan

April 2017

A senior thesis submitted to the Department of Communication Studies at The University of Michigan in partial fulfillment of the Bachelor of Arts degree (Honors)

Professor Scott Campbell, Communication Studies Honors Program Advisor

Professor Kris Harrison, Faculty Thesis Advisor

### **Acknowledgements**

I first want to thank Professor Campbell and Professor Harrison for their unwavering support throughout this entire process. They never failed to provide the assistance and assurance I needed, remaining patient with me at all times. I also owe a massive thank you to my incredible roommates, friends, and boyfriend, who offered their encouragement when I became inevitably stressed or discouraged this past year. I often rambled on for far too long and far too often about this project, yet they listened to my excitement and expressed their pride in me nonetheless. And finally, to Tiffany, who has inspired me to write this thesis from day one, I must express my sincere gratitude. I look up to you each day in awe of your intelligence, strength, and extraordinary accomplishments. Your hard work and dedication are evident in everything that you do, and I have seen you persist even when faced with the most daunting of obstacles. Thank you for believing in me and for giving me an endless supply of positive affirmations. Thank you for setting an outstanding example for me and for showing me the kinds of goals that I, too, can strive to achieve—no aspiration is too crazy, for you have taught me that anything is possible with enough drive, passion, and resilience. I love you and am so proud to call you my sister.

**Table of Contents**

I. ACKNOWLEDGMENTS ..... 1

II. ABSTRACT ..... 4

III. INTRODUCTION ..... 5

IV. LITERATURE REVIEW ..... 9

    i. Social Media and Body Image ..... 9

    ii. Social Comparison Theory ..... 10

    iii. Target of Comparison ..... 13

    iv. Body Shame ..... 15

    v. Self-Discrepancy Theory ..... 16

    vi. Affective Associations ..... 18

    vii. Gender Differences ..... 19

V. METHOD ..... 21

    i. Participants ..... 21

    ii. Procedure ..... 22

    iii. Measures ..... 22

        Control Variables ..... 22

        Upward Social Comparison ..... 22

        Body Shame ..... 23

        Self-Discrepancy ..... 23

        Agitation and Dejection ..... 24

    iv. Analysis ..... 25

VI. RESULTS ..... 26

i. Hypothesis 1 ..... 27

    Peer-Targeted Upward Comparison ..... 27

    Celebrity-Targeted Upward Comparison..... 28

ii. Hypothesis 2 ..... 29

    Ideal Self-Discrepancy ..... 29

    Ought Self-Discrepancy ..... 29

iii. Hypothesis 3 ..... 30

    Ought Self-Discrepancy ..... 31

    Ideal Self-Discrepancy ..... 31

iv. Hypothesis 4 ..... 32

VII. DISCUSSION ..... 33

    i. Limitations ..... 36

    ii. Future Directions ..... 37

VIII. REFERENCES..... 39

### **Abstract**

The aim of this correlational study was to investigate the ways in which engaging in upward social comparison with celebrities and peers on Instagram relates to body shame among 143 undergraduate students. Drawing on Higgins' (1987) research, the potential moderating roles of ideal and ought self-discrepancies and the related emotions of dejection and agitation were also examined. Overall, findings indicated a statistically significant, positive relationship between peer-targeted upward comparison and body shame ( $p = .021$ ) as well as celebrity-targeted upward comparison and body shame ( $p = .002$ ) when controlling for gender, age and race. Evidence failed to support self-discrepancy or gender moderation. In addition, ought self-discrepancy, but not ideal self-discrepancy, predicted feelings of agitation ( $p = .004$ ) and dejection ( $p = .001$ ). The discussion offers a number of suggestions for future directions in the field of social media and body image research.

*Keywords:* upward social comparison, body shame, Instagram, self-discrepancy, agitation, dejection

## Introduction

Social media platforms have altered the technological landscape in the last decade by making it easier for users to create and horizontally distribute media content. On these platforms, users can directly engage with one another, forming friendship networks and expressing themselves through the creation of personal profiles, photos, videos, comments, and status updates. As a result, these websites provide an attractive, convenient way for individuals to maintain personal relationships and remain informed about the world around them. However, social media use has also been tied to negative consequences. In the era of social media, the lives of friends as well as public figures are on display in the same places. While this increases social connection with friends and lesser known others (Ellison, Steinfield, & Lampe, 2007), there is also a downside.

People may process the photographs they see online in potentially harmful ways. In particular, viewers may utilize these photos as tools for self-evaluation while comparing themselves to others on various attributes, a process known as *social comparison* (Festinger, 1954). When the target of comparison is perceived as being superior to the viewer in some way, the viewer is said to be engaging in *upward social comparison* (Festinger, 1954). Social media websites are sources rich with a variety of close-up and full-body photos of both friends and celebrities, providing users with countless, easy opportunities to compare themselves with those who appear to possess more positive, desirable traits. Vogel, Rose, Roberts, and Eckles (2014) demonstrated how viewing these positive self-presentations on social media can be problematic for users, finding that upward social comparison mediated the relationship between higher-frequency Facebook use and lower self-esteem. As such, it seems that the impact of viewing

photos online may have more to do with the way users process those images rather than simply how often they view them.

While social media and social comparison processes have been associated with numerous self-esteem and body image issues (Fardouly, Diedrichs, Vartanian, & Halliwell, 2015; Ho, Lee, & Liao, 2016; Smith, Hames, & Joiner, 2013; Vogel, Rose, Roberts, & Eckles, 2014), one related problem that has received little attention in previous literature is *body shame*. Body shame results from the embarrassment an individual feels when their appearance fails to meet internalized, yet unattainable, societal beauty standards (Mustapic, Marcinko, & Vargek, 2015). Social media platforms constantly flood users with an abundance of images that reinforce the current cultural standards of beauty. Because these websites offer the options of editing photos before posting, these images may not be true reflections of reality, but rather carefully selected, and sometimes altered, representations. These features of social media help to create the illusion of the “perfect” appearance, which users may internalize and aim to achieve, but fall short of due to its unattainability. The experience of body shame that may result involves negative self-evaluations and the desire to hide one’s body (Mustapic, et al., 2015). This type of shame has been linked to numerous health issues, such as disordered eating (Troop & Redshaw, 2012) and depression (Grabe, Hyde, & Lindberg, 2007).

Self-discrepancy theory may help explain how and why the relationship between social comparison on social media and the experience of body shame can vary across individuals. Although humans, by nature, compare themselves to others, Higgins (1987) proposed that individuals also compare themselves to internal standards, called *self-guides*. When a person’s *actual self*, or representation of the attributes they believe themselves to possess, fails to meet these standards in some way, the person experiences a *self-discrepancy*. A discrepancy between

the actual self and a person's *ideal self*, representing the attributes they would ideally wish to possess, is known as an *ideal self-discrepancy*. On the other hand, an *ought self-discrepancy* arises when the actual self does not line up with the *ought self*, which represents the attributes that a person believes it is their responsibility or duty to possess. These self-guides may be represented from the standpoint of the self or some significant other (e.g., a family member or peer), and they can operate in connection with social comparison processes. McIntyre and Eisenstadt (2010) proposed that individuals evaluate where they stand in relation to their self-guides by using social comparison as a "measuring stick." In this way, individuals may engage in upward social comparison in order to assess where they stand relative to their ideal and ought selves. Like social comparison theory, self-discrepancy theory has been used to frame body image research, with ideal and ought self-discrepancies being significantly related to body shame among college women (Bessenoff & Snow, 2006).

This relationship between self-discrepancies and body shame points to the various affective consequences associated with different discrepancies between self-guides. According to Higgins (1987), ideal discrepancies, which signify the absence of positive outcomes, are related to feelings of dejection (e.g., depression), while ought discrepancies, representing the presence or threat of negative outcomes, are related to feelings of agitation (e.g., anxiety). As McIntyre and Eisenstadt's (2010) research suggests, engaging in more frequent social comparison may lead to larger ideal and ought self-discrepancies and an increase in the experience of depression and anxiety. Studying these emotional outcomes within a framework of social comparison theory and body shame may prove beneficial in examining how the failure to live up to one's personal standards can relate to psychological distress when viewing images on social media.



Among the existing social media platforms, Instagram is set apart by its distinct characteristics and widespread popularity. Launched in 2010, Instagram was designed for sharing photos and videos from smartphones, offering a variety of colored filters and editing features that users can apply before posting. Instagram users can “follow” one another in order to view each other’s photos, all of which appear together in one fluid “feed” that the user can scroll through. Further, Instagram also provides users with the option of commenting on or “liking” others’ photos by tapping a heart-shaped icon. Both known individuals (e.g., peers) and public figures (e.g., celebrities) may be followed. With previous research pointing toward photo viewing on social media as a main factor underlying negative self-appraisal outcomes, it seems apparent that Instagram’s image-driven nature would present a particularly high risk for such effects. Since its inception, Instagram has accumulated a broad user base and continues to increase rapidly in popularity. As of June 2016, the application boasts more than 500 million monthly active users (“Number of Monthly Active Instagram Users,” 2016). With 18 to 24-year-olds representing 59% of all Instagram users in the U.S. (“Social Spotlight,” 2016), it seems that college-aged individuals may be especially susceptible to the consequences of frequent exposure and comparison to idealized images of others. Indeed, in a recent survey, college students rated Instagram as their favorite social media site, ranking the platform above both Twitter and Facebook in preference (“Social Spotlight,” 2016). With such high prevalence and popularity among this demographic, studying college students’ Instagram use may be a fruitful component in understanding and explaining the negative impact that viewing social media photos can have on body image.

Toward that end, the purpose of this study is to investigate the ways in which engaging in upward social comparison with celebrities and peers on Instagram relates to body shame among

college students. The potential moderating roles of ideal and ought self-discrepancies and the related emotions of dejection and agitation will also be examined in order to identify how these variables may shape the ways individuals process images and think about their bodies.

## **Literature Review**

### **Social Media and Body Image**

Though social media have only recently risen to popularity in the last two decades, a wealth of research exists on the ways in which these platforms may impact users' mental and physical health, albeit with mixed results. For instance, Facebook, one of the most commonly researched platforms, has on one hand been praised as a positive communicative tool associated with increases in well-being (Burke & Kraut, 2016; Ellison, Steinfield, & Lampe, 2007) and on the other, has been criticized for predicting declines in well-being (Kross et al., 2013; Satici & Uysal, 2015). Amid these explorations of social media effects, however, there is, as Perloff (2014) articulates, a distinct lack of theoretically-driven research examining social media and body image. Considering the ample evidence supporting a relationship between exposure to traditional mass media images and body image concerns (Botta, 1999; Grabe, Ward, & Hyde, 2008; Tiggemann & McGill, 2004), immersion in the image-focused environment of social media may yield similarly troubling outcomes, especially for users of photo-based platforms such as Instagram. As such, the present study aims to investigate the ways in which engaging in upward social comparison with celebrities and peers on Instagram relates to body shame among college students. The potential moderating roles of ideal and ought self-discrepancies and the related emotions of dejection and agitation will also be examined in order to identify how these variables may shape the ways individuals process images and think about their bodies.

In seeking to evaluate the impact of Instagram, Facebook, and Pinterest on body image, Pepin and Endresz (2015) found that 18-25 year-olds who used these platforms reported feeling pressure to lose weight, look more attractive or muscular, and to change their appearance, while Instagram use in particular was significantly correlated with concerns about body image and body surveillance. Although these findings provide an excellent starting point to build upon in future investigations of social media and body image, the relationship between these variables is likely one involving a complex interaction of processes. A number of studies point to social comparison as one such process playing a key role in the links between social media and body image (Fardouly & Vartanian, 2016; Perloff, 2014; Vigil & Wu, 2015).

### **Social Comparison Theory**

According to social comparison theory, postulated by Festinger in 1954, humans possess an innate drive for accurate self-evaluation. In order to make these assessments, people tend to compare themselves with similar others. Often these comparisons take place when a person compares himself or herself with someone they deem to be better in some way. This is known as upward social comparison. Downward social comparison works in the opposite direction: when a person compares himself or herself with another who is perceived to be worse in some way.

The Internet has provided a new space for individuals to make social comparisons. Online, in the absence of real-life comparison targets, social media users can evaluate where they stand compared to the people they “follow.” Ho, Lee, and Liao (2016) identified three unique affordances of social networking websites that facilitate this process: (a) social networking websites allow for self-presentation and self-promotion, particularly through the uploading of self-portraits known as “selfies,” which can be taken multiple times to ensure that only positive attributes of the self are visible while negative attributes are downplayed; (b)

social networking sites provide users with a constant flow of information and edited photos from the peers and celebrities that they follow, presenting them with greater exposure to images of idealized bodies; (c) social networking website content is personalized, which causes users to attribute a higher perceived level of realism to the photos they see. For example, the “selfie” serves as an authentic depiction of a person in their “real” life, which causes users to interpret it as being more realistic in comparison to mass media portrayals, which are highly edited by professionals. Applying social comparison theory to research on social networking website effects, Ho et al. (2016) found that engaging in social comparison with friends on social networking sites was significantly associated with body image dissatisfaction, drive to be thin, and drive to be muscular among adolescents.

Beyond the cognitive effects of engaging in social comparison online, Smith, Hames, & Joiner (2013) conducted an experiment to demonstrate how this tendency can also lead to negative behavioral outcomes among college students. The researchers found that maladaptive Facebook use, defined as the tendency to seek negative social evaluations and/or engage in social comparison on Facebook, significantly predicted an increase in bulimic symptoms and episodes of overeating four weeks later.

While social comparison can take place in an upward or downward direction, Vogel, Rose, Roberts, & Eckles (2014) suggest that a majority of the social comparative information that social networking website users receive may lean in the upward direction, as these websites provide the perfect platform for careful self-presentation, allowing users to selectively post content and pictures that represent themselves in ideal ways. As a result, comparing one’s realistic offline self to another person’s idealized online self can have a detrimental psychological effect on users. To test this, Vogel et al. (2014) conducted a correlational study,

discovering that the participants who used Facebook most often had poorer trait self esteem, a relationship that was mediated by upward social comparison. In the second part of the study, the researchers utilized an experimental approach to examine the impact of temporary exposure to social media profiles. Findings revealed that participants' state self-esteem and relative self-evaluations were lower when the target person's profile contained upward comparison information (e.g. healthy habits) than when the target person's profile contained downward comparison information (e.g. unhealthy habits). These results lend evidence to the notion that upward social comparison may underlie the detrimental effects of frequent social media use.

According to Fardouly, Diedrichs, Vartanian, & Halliwell (2015), the increasing use of social media may be changing which physical features are salient when individuals engage in social comparison. With the growing popularity of photo-editing platforms such as Instagram and the rise of the "selfie" widening the range of attributes on which people compare themselves to others, it is important to look beyond just weight-related concerns when studying body image and consider facial features, complexion, hair, and other physical characteristics as well. To demonstrate the effects of making social media-based upward social comparisons across these various attributes, Fardouly et al. (2015) exposed participants to either Facebook, a magazine website, or a control website. Experimenters found that for female participants who made more appearance comparisons, spending time on Facebook led to a greater desire to change face, hair, and skin-related features. Similarly, results of a survey distributed by Wang, Yang, & Haigh (2016) revealed that "selfie" viewing was negatively associated with self-esteem and that frequent selfie viewing led to decreased life satisfaction. The researchers suggested that this effect on psychological wellbeing may be explained by the upward social comparisons that users make when viewing "selfies" online.

### **Target of Comparison**

As Perloff (2014) contends, “Social media, with their emphasis on attractive peers—and not exclusively ultra-thin models—may elide persuasion defense mechanisms, leading to a host of potentially significant effects on body image-related attitudes.” The uniqueness of Instagram is largely characterized by its display of two different types of targets to which users may compare themselves: celebrities and peers. Whereas traditional media studies have focused primarily on comparisons made only to thin-ideal images of models or celebrities, the presence of attractive peers is a noteworthy feature of social media presenting a compelling new area for consideration.

In a study of adolescent boys and girls, Jones (2001) discovered that weight-related social comparisons to both peer and celebrity/model targets were significantly related to body dissatisfaction. In addition, shape comparisons reported by girls and facial feature comparisons endorsed by boys also related to body dissatisfaction. While these findings indicate that both celebrities and peers can be targets of appearance-related social comparison, the current body of literature is mixed on whether comparing oneself to these different targets may lead to differences in outcome severity.

Tiggermann and McGill (2004) experimentally approached the topic of celebrity-targeted social comparison and concluded that engaging in upward social comparison with professional models mediated the relationship between exposure to magazine advertisements and the outcomes of negative mood and body dissatisfaction. Similarly, in Botta's (1999) survey of high school girls, analyses revealed that exposure to television celebrities established these images as realistic ideals, which had an impact on body image disturbance. The more the girls compared themselves to the television images, the more they strove to be thin, the more they disliked their

bodies, and the more they engaged in unhealthy behaviors. Further evidencing the negative effects of mass media exposure to celebrities, Leahey and Crowther (2008) conducted a study to compare the negative outcomes associated with different targets and found that making appearance-related social comparisons with mass media images had more negative consequences than making such comparisons with peers.

On the contrary, other studies have displayed the opposite trend: that engaging in upward social comparison with attractive peers can lead to more negative self-ratings of attractiveness than comparisons with attractive magazine models, which may be due to the fact that peers are perceived as being more similar, therefore their beauty considered a more appropriate standard for comparison than professional beauty (Cash, 1983). This explanation has credence, as it aligns with the assumption of social comparison theory, which presumes that humans seek comparison targets that they regard as being similar to themselves (Festinger, 1954).

Still other research has shown that engaging in upward social comparison with peers and celebrities can be equally damaging. According to Myers and Crowther's (2009) meta-analysis, data from 156 studies indicated that social comparison was related to higher levels of body dissatisfaction; however, there was no significant difference in body dissatisfaction between women who compared themselves to media images (e.g. celebrities) and those who compared themselves to peers.

Despite the lack of agreement between outcome findings, one can speculatively state that Instagram users, who follow and view photos of celebrities and peers together in the same feed, may engage in comparison with both of these target types, thereby leading to more potential opportunities for negative body image outcomes. For the purpose of the present study, it is our prediction that outcome severity will not differ between comparison target types.

## **Body Shame**

Body shame is a considerably important aspect of body image to examine, as it broadly encompasses the thoughts, feelings, and behaviors that relate to the experience of shame directed toward one's body (Troop & Redshaw, 2012). Because the experience of body shame can include one's cognitions, emotions, and actions, it may relate to a number of negative physical and mental health consequences.

In a survey of 299 adolescents, Grabe, Hyde, & Lindberg (2007) found that body shame mediated the relationship between self-objectification and depression among girls, likely a result of adolescents' constant self-monitoring, which highlights their failure to achieve an unrealistic ideal body type. In addition to mental health consequences, body shame may also relate to behavioral outcomes. For instance, Noll and Frerickson (1998) identified body shame as a mediator linking self-objectification and disordered eating in a sample of college women and Mustapic, Marcinko, and Vargek (2015) discovered that body shame mediated the relationship between body dissatisfaction and eating behaviors among adolescent girls in Zagreb. Troop and Redshaw (2012) also examined the physical impact of bodily shame, conducting a longitudinal study of women with a past or current eating disorder. They observed that body shame uniquely predicted an increase in anorexic symptoms 2.5 years later. Further, current body shame predicted an increase in the degree of underweight body size and the misperception of body size, while anticipated body shame predicted increased fear of weight gain among women. Taken together, these findings provide substantial evidence that body shame may be an important link between one's body-related cognitions and their emotional and physical health.

The media may be partially to blame for the development of body shame, particularly among college students. Illustrating this phenomenon, Monro and Huon (2005) exposed female



college students to thin-ideal magazine advertisements, finding that viewing the thin models led to increased body shame. Moreover, social media use may contribute to this issue as well, with Facebook involvement predicting objectified body consciousness and, in turn, body shame among undergraduates (Manago, et al., 2014) and the use of photo-based website Pinterest also being associated with body shame among college students (Pepin & Endresz, 2015).

While much of the literature has focused on appearance-based social comparison and social media use, there is little to no exploration of how engaging in social comparison on social media may correlate with body shame, specifically on Instagram, where celebrity and peer photos can appear together in the same feed. As such, the present study aims to fill these gaps with the following prediction:

H1: Engaging in upward social comparison with both peers and celebrities on Instagram will be positively associated with body shame.

### **Self-Discrepancy Theory**

Self-discrepancy theory (Higgins, 1987) may provide a framework for understanding individual differences in the strength of the relationship between upward social comparison on Instagram and body shame. The theory posits that there are three basic domains of the self: (a) the actual self, which is a person's representation of the attributes that someone (themselves or another) believes they actually possess; (b) the ideal self, which is a person's representation of the attributes that someone (themselves or another) would like them, ideally, to possess (i.e., a representation of someone's aspirations, or wishes for them); and (c) the ought self, which is a person's representation of the attributes that someone (themselves or another) believes they should possess (i.e., a representation of someone's sense of their duty or responsibilities). The actual self is known as one's self concept, while the ideal and ought selves are known as self-guides. Going

along with this, there are two basic standpoints on the self, or perspectives from which the self can be judged: (a) one's own personal standpoint, and (b) the standpoint of some significant other (e.g., mother, father, sibling, spouse, close friend). From either of these standpoints, when the actual self does not "line up" with the ideal self, there exists an ideal self-discrepancy. Similarly, when the actual self does not line up with the ought self, an ought self-discrepancy is experienced. According to this theory, humans are motivated to reach a condition where the self-concept matches their personally relevant self-guides.

Examined together, the theories of social comparison and self-discrepancy may help explain how such processes can lead to negative physical and emotional body image issues. To demonstrate how these concepts relate, McIntyre and Eisenstadt (2010) distributed a survey to college students, discovering that individuals high in social comparison orientation reported ideal and ought self-discrepancies larger in magnitude than those low in social comparison orientation. This study provided evidence that social comparison may operate as a self-regulatory measuring stick that can help individuals evaluate where they stand relative to their ideal and ought selves.

In further support of the relationship between social comparison and self-discrepancy, Bessenoff's (2006) findings revealed that women high in body image self-discrepancy were more likely to engage in social comparison from exposure to thin-ideal advertisements, as well as more likely to have those comparison processes induce self-directed negative consequences such as body dissatisfaction, negative mood, higher levels of depression, and lower self-esteem.

Like social comparison, body shame has been linked to self-discrepancy theory in previous research. For example, Bessenoff and Snow (2006) concluded that ideal self-discrepancies from one's own standpoint, as well as ought self-discrepancies from the standpoint of others, were significantly related to body shame in a survey of female undergraduates.

Drawing on this, the present study will measure ideal and ought-self discrepancies from these same standpoints. Measuring ought-discrepancy from the perspective of others, specifically one's peers, may be particularly useful in the case of Instagram, a platform with a strong peer presence that could influence the way users think about how their peers perceive them. On the other hand, measuring ideal-discrepancy from one's own perspective may be particularly useful in regards to viewing celebrity Instagram photos, as the celebrities that users choose to follow could represent personal ideals. For individuals who engage in upward social comparison on Instagram, it is possible that experiencing a stronger discrepancy between the actual self and one of the two self-guides may lead to increased feelings of distress and shame when they do not "measure up" to their comparison targets.

Given these findings, the present study aims to identify how all three concepts may fit together, with self-discrepancy as a potential moderator between upward social comparison and body shame. To address this, the following hypothesis was derived:

H2a: The relationship between engaging in celebrity-targeted upward social comparison and body shame will be stronger for individuals high in ideal self-discrepancy.

H2b: The relationship between engaging in peer-targeted upward social comparison and body shame will be stronger for individuals high in ought self-discrepancy.

### **Affective Associations**

Higgins (1987) proposed that discrepancies between an individual's self-concept and self-guides can produce certain emotional vulnerabilities that cause negative psychological experiences. More specifically, self-discrepancy theory posits that an ideal self-discrepancy signifies the absence of positive outcomes, which is associated with dejection-related emotions (e.g., disappointment, dissatisfaction, sadness). Contrarily, an ought self-discrepancy signifies

the presence of negative outcomes, which is associated with agitation-related emotions (e.g., fear, threat, restlessness).

Social comparison processes can contribute to the development of the negative psychological situations that arise from self-discrepancies. Notably, McIntyre and Eisenstadt (2011) discovered that individuals who engaged in more frequent social comparison experienced larger ideal and ought self-discrepancies, which led to an increase in feelings of dejection and agitation. In addition, Bessenoff (2006) found that, for highly self-discrepant women, exposure to thin-ideal advertisements led to greater dejection and agitation-related moods than for women exposed to neutral advertisements. Engaging in social comparison with thin-ideal advertisements led to an increase in these negative moods.

Because the agitation and dejection-related emotions that result from ideal and ought self-discrepancies may lead to negative behavioral consequences such as disordered eating (Harrison, Taylor, & Marske, 2006), studying this relationship among college-aged Instagram users is an important contribution to the existing literature on body image. Thus, the present study will test the following hypothesis:

H3a: Ought self-discrepancy will be significantly and positively associated with experiencing feelings of agitation when viewing photos on Instagram.

H3b: Ideal self-discrepancy will be significantly and positively associated with experiencing feelings of dejection when viewing photos on Instagram.

### **Gender Differences**

While a vast amount of body-related media effects literature has focused on females, research on male body image effects is a growing area of interest, as men may be vulnerable to internalizing the media-perpetuated muscular ideal and subsequently experiencing body

dissatisfaction (Perloff, 2014). According to Perloff (2014), exposure to social media may have an especially significant impact due to the plethora of muscular images that men can compare themselves to. Taking into account this new phenomenon, the present study will expand the current body of literature by including data on both male and female participants to investigate the gender differences or similarities that may manifest.

While increasing attention is being devoted to male body image effects, Strahan, Wilson, Cressman, and Buote (2006) argue that cultural norms for a man's appearance are more relaxed and flexible than female norms, which suggest that women must fit into an extremely narrowly defined category of attractiveness. In a study of both genders, women described their appearance more negatively than men, made more body-related upward comparisons, and compared themselves with unrealistic targets (e.g. models) more than men did. As a result, women may be more susceptible to negative body image effects stemming from the media's continued perpetuation of a strictly defined thin ideal.

In support of the notion that females may engage in social comparison more than males, adolescent girls in Jones' (2001) study reported more social comparisons across targets (celebrities and peers) and attributes than boys. Further, 13-year-old girls in a longitudinal study conducted by Grabe et al. (2007) reported higher levels of self-surveillance, body shame, rumination, and depressive symptoms than their male counterparts, showing that levels of body shame can also differ between males and females. Together, these findings suggest that gender differences in social comparison behaviors and body image effects can be present from a young age and persist through adulthood.

Gender appears consistently as a moderator across the literature on social comparison and body image. Indeed, results of Myers and Crowther's (2009) meta-analysis yielded that gender

moderated the relationship between social comparison and body dissatisfaction across 156 studies, with women being more strongly affected than men.

Social networking websites are not immune to these gender differences. Ho et al. (2016) showed that engaging in social comparison with celebrities on social networking websites was significantly associated with body image dissatisfaction and drive to be thin among females, but not males. In addition, females engaged in more frequent social comparison on social networking websites compared to males. As an outcome of social media use, women may also experience body shame more than men do. This disparity was observed in a survey of Facebook use among college students, in which women reported significantly higher levels of body shame than men and the relationship between objectified body consciousness and body shame was stronger for women than for men (Manago, Ward, Lemm, Reed, and Seabrook, 2014). With this gender differential evidence in mind, the final hypothesis was constructed:

H4: The relationship between engaging in upward social comparison with peers and celebrities and the experience of body shame will be stronger for females than for males.

## **Method**

### **Participants**

Participants were 143 University of Michigan students enrolled in Communication Studies 102 during the Winter 2017 semester who indicated that they used Instagram. Students were recruited from the Communication Studies Subject Pool and they received course credit for their participation. The sample was predominantly White (68%), Female (71%), and most participants were 18 (42%) or 19 (35%) years old. As a majority of participants were White with very few students falling into the Asian (18%), Black/African American (8%), and Hispanic/Latino (6%) categories, Race was coded dichotomously as “White” versus “All Other.”

## Procedure

An online survey was distributed to participants from January to March of 2017 using Qualtrics survey software. The first page of the survey was a consent form for students to look over. After reading, students clicked an arrow button at the bottom of the page, indicating that they had given their informed consent to proceed with the study. Participants then completed four questionnaires in the following order: the Upward Physical Appearance Comparison Scale, the Body Shame Questionnaire, the Selves Questionnaire, and the Mood Checklist. The survey took approximately 30 minutes to complete.

## Measures

**Control Variables.** This study controlled for age, gender, and race, all of which may have an impact on the criterion variable of body shame (age:  $M = 1.86$ ,  $SD = 0.92$ ; gender:  $M = 1.71$ ,  $SD = 0.46$ ; race:  $M = 1.32$ ,  $SD = 0.47$ ).

**Upward Social Comparison.** The Upward Physical Appearance Comparison Scale (O'Brien et al., 2009) was used to measure appearance-related upward social comparison on Instagram with celebrities and peers. Items were adapted to specify the target of comparison and to measure only comparisons that take place on Instagram. Respondents completed two versions of this questionnaire: a 5-item scale that identified celebrities as the target of comparison (e.g. "On Instagram, I tend to compare myself to celebrities [models, movie stars, etc.] I think look better than I do"), and a 5-item scale that identified peers as the target of comparison (e.g. "On Instagram, I tend to compare myself to my peers I think look better than I do"). Items were rated on a 5-point scale (1 = strongly disagree, 5 = strongly agree). For scoring, item responses were averaged, with higher scores indicating a greater tendency to compare oneself with targets

considered physically attractive (celebrity:  $M = 2.95$ ,  $SD = 1.28$ , Cronbach's  $\alpha = .96$ ; peer:  $M = 3.82$ ,  $SD = 1.01$ , Cronbach's  $\alpha = .93$ ).

**Body Shame.** Noll and Fredrickson's (1998) Body Shame Questionnaire was used to measure body shame. The questionnaire listed 28 different body parts and physical attributes (e.g. waist, arms, complexion, ears, ankles). For each body part, participants were asked to indicate how intensely they desired to change that aspect of their body. Intensity ratings ranged from 0 to 9 (0 = no desire, 9 = very intense desire) and a body shame score was created by standardizing these ratings ( $M = 4.31$ ,  $SD = 1.59$ , Cronbach's  $\alpha = .92$ ), with higher scores indicating higher levels of body shame.

**Self-Discrepancy.** The Selves Questionnaire (Higgins et al., 1986) was used to assess body-related ideal and ought self-discrepancies. This free-response style questionnaire required participants to list ten physical traits that described themselves and rate on a 4-point scale how much those traits described the self.

The actual self was measured first, with participants being instructed to list 10 physical attributes they believe they *actually* possess. They then indicated on a scale of 1 to 4 (1 = only a little, 4 = very, very much) how much those words described their body. For the ideal self, participants were asked to list 10 physical attributes they *ideally* would like to possess (i.e. their wishes, desires or hopes for themselves), as well as how much they would ideally like to possess those attributes. Finally, to measure the ought self, participants were asked to list 10 physical attributes that they believe their peers think they *ought* to possess (i.e. it is their duty or responsibility to possess), as well as how much they think their peers believe they ought to possess those attributes.



Attributes listed for the actual self-concept were compared with those listed for the ideal and ought self-guides. Attributes on the actual self list that were opposite to an attribute on the ideal or ought self list were considered mismatches. A mismatch of degree was coded when synonymous words were used between the actual list and the ideal or ought list, but the ratings differed by two or more points. When a word in the ideal or ought self list was not synonymous or antonymous with any of the actual list words, a nonmatch was coded. A match was coded when synonymous words were used between the actual list and the ideal or ought list, and the ratings did not differ by more than one point.

Ideal self-discrepancy was calculated by subtracting the total number of actual-ideal matches from the total number of actual-ideal mismatches ( $M = 1.65$ ,  $SD = 3.31$ ). This was repeated with the actual-ought matches and actual-ought mismatches to calculate the ought self-discrepancy score ( $M = 0.48$ ,  $SD = 3.56$ ). Higher scores indicated larger self-discrepancies.

**Agitation and Dejection.** A modified version of the 24-item Mood Checklist (Strauman & Higgins, 1987) was used to measure feelings of agitation and dejection related to viewing Instagram photos. Participants were asked to indicate the extent to which they experienced various emotions on a scale of 0 to 6 (0 = not at all, 6 = a great deal) when viewing photos on Instagram. The scale included 12 agitation items and 12 dejection items. Examples of agitation items were “calm” (reverse-coded) and “nervous.” Examples of dejection items were “enthusiastic” (reverse-coded) and “blue.” To strengthen the reliability of the scales, 6 dejection items and 6 agitation items were dropped from the final analysis to leave a 6-item dejection scale and a 6-item agitation scale. The ratings for the dejection-related emotions were combined to create a dejection score ( $M = 2.93$ ,  $SD = 1.47$ , Cronbach's  $\alpha = .93$ ), and the ratings for the

agitation-related emotions were combined to create an agitation score ( $M = 2.41$ ,  $SD = 1.28$ , Cronbach's  $\alpha = .88$ ), with higher scores indicating higher levels of dejection and agitation.

### **Analysis**

Prior to hypothesis testing, zero-order correlations were calculated between all of the key demographic and body image variables.

To address H1, a multiple regression model was utilized to test the extent to which celebrity-targeted upward social comparison and peer-targeted upward social comparison predicted criterion variable body shame. Control variables race, age, and gender were entered at step one, celebrity-targeted social comparison and peer-targeted social comparison were entered at step two, and the interactions between gender and the social comparison variables were entered at step three to test for moderation, as predicted in H4.

Controlling for race, age, and gender, H2 was tested by running a second multiple regression analysis, this time with the variables ideal self-discrepancy and ought self-discrepancy entered at step two. At step three, terms representing the interaction between ideal self-discrepancy and celebrity-targeted upward comparison and the interaction between ought self-discrepancy and peer-targeted upward comparison were entered in order to examine whether the link between celebrity-targeted upward comparison and body shame differed across levels of ideal discrepancy and whether the link between peer-targeted upward comparison and body shame differed across levels of ought discrepancy.

Finally, two additional regression analyses were conducted to test the extent to which ideal self-discrepancy predicted dejection and ought self-discrepancy predicted agitation, as predicted in H3. Race, age, and gender were held constant as ideal and ought self-discrepancy

were entered at step two, with agitation being entered as the criterion variable in one analysis, and dejection being entered as the criterion variable in the other.

### **Results**

Before reporting on the findings for the hypotheses, a few observations about zero-order correlations (in Table 1) are in order. Unsurprisingly, celebrity-targeted and peer-targeted upward social comparison were positively correlated with one another, indicating that students who were likely to compare themselves to celebrities were also likely to compare themselves to their peers on Instagram. Celebrity-targeted and peer-targeted upward social comparison were also both positively correlated with body shame, ought self-discrepancy, ideal self-discrepancy, agitation, and dejection. Further, body shame was positively correlated with ideal and ought self-discrepancies, as well as dejection and agitation. Overall, the significant associations observed here highlight the interrelated nature of these body image variables.

Regarding the student demographic variables, celebrity and peer-targeted upward comparison were both positively correlated with gender, with females being more likely than males to engage in upward social comparison on Instagram with these targets. Engaging in upward comparison with celebrities, but not peers, was also positively correlated with age. In addition, body shame was positively correlated with age, and dejection was positively correlated with gender, as females were more likely to report experiencing dejection when viewing Instagram photos. Taken together, these correlations suggest the need to control for demographic variables during hypothesis testing in order to isolate peer and celebrity-targeted upward comparison as unique predictors of body shame and to isolate ideal and ought self-discrepancies as unique predictors of dejection and agitation, respectively.

Table 1

*Intercorrelations for Key Demographic and Body Image Variables*

Measure	1	2	3	4	5	6	7	8	9	10
1. Peer SC	--	.59*	.41*	.43*	.34*	.38*	.30*	.16	.31*	.001
2. Celeb SC		--	.44*	.39*	.37*	.23*	.18*	.24*	.19*	-.01
3. Body Shame			--	.52*	.45*	.35*	.36*	.19*	.15	.12
4. Dejection				--	.84*	.40*	.28*	.08	.20*	-.03
5. Agitation					--	.31*	.18*	.11	.11	0.06
6. Ought SD						--	.71*	.05	.15	.05
7. Ideal SD							--	-.02	.14	.09
8. Age								--	-.10	.20*
9. Gender									--	-.10
10. Race										--

*Note.* Age coded as 18 = 1, 19 = 2, 20 = 3, 21 = 4, 22+ = 5; Gender coded as Male = 1, Female = 2; Race coded as White = 1, All Other = 2

\* $p < .05$

### Hypothesis 1

Hypothesis 1 predicted that engaging in upward social comparison with both peers and celebrities on Instagram would be positively associated with body shame. Results of the hierarchical multiple regression model with predictor variables celebrity and peer-targeted upward social comparison and criterion variable body shame are reported in Table 2.

**Peer-Targeted Upward Comparison.** After controlling for gender, race, and age, the positive relationship between peer-targeted upward social comparison and body shame was statistically significant ( $p = .021$ ), indicating that engagement in upward social comparison with peers on Instagram positively predicted feelings of body shame.

**Celebrity-Targeted Upward Comparison.** After controlling for gender, race, and age, the positive relationship between celebrity-targeted upward social comparison and body shame was statistically significant ( $p = .002$ ), indicating that engagement in upward social comparison with celebrities on Instagram positively predicted feelings of body shame. Thus, H1 was fully supported.

Table 2

*Hierarchical Multiple Regression Analysis Predicting Body Shame from Social Comparison Variables with Gender Interaction*

Predictor	$\Delta R^2$	$\beta$
Step 1: Student Demographics	.07*	
Age		.18*
Gender		.17*
Race		.10
Step 2: Social Comparison Variables	.18*	
Peer Social Comparison		.22*
Celebrity Social Comparison		.29*
Step 3: Interaction Variables	.002	
PeerSCxGender		.05
CelebSCxGender		-.01

*Note.* Age coded as 18 = 1, 19 = 2, 20 = 3, 21 = 4, 22+ = 5; Gender coded as Male = 1, Female = 2; Race coded as White = 1, All Other = 2

\* $p < .05$

## Hypothesis 2

Hypothesis 2 predicted that the relationship between engaging in celebrity-targeted upward social comparison and body shame would be stronger for individuals high in ideal self-discrepancy, and that the relationship between engaging in peer-targeted upward social comparison and body shame would be stronger for individuals high in ought self-discrepancy.

**Ideal Self-Discrepancy.** Table 3 displays the results of the multiple linear regression evaluating the interaction between self-discrepancy and social comparison. No significant interaction was observed between ideal discrepancy and celebrity-targeted upward comparison, suggesting that ideal self-discrepancy did not moderate the relationship between celebrity-targeted upward social comparison and body shame. Thus, H2a was not supported.

**Ought Self-Discrepancy.** No significant interaction was observed between ought discrepancy and peer-targeted upward comparison (see Table 3). Therefore, ought self-discrepancy did not moderate the relationship between peer-targeted upward social comparison and body shame as predicted in H2b.

Notably, the self-discrepancy variables significantly and positively predicted body shame, and the change in  $R^2$  remained about the same with the addition of the social comparison variables in step three. According to these results, social comparison uniquely predicted body shame, even for those low in self-discrepancy.

Table 3

*Hierarchical Multiple Regression Analysis Predicting Body Shame from Social Comparison**Variables with Self-Discrepancy Interaction*

Predictor	$\Delta R^2$	$\beta$
Step 1: Student Demographics	.07*	
Age		.18*
Gender		.17*
Race		.10
Step 2: Self-Discrepancy Variables	.13*	
Ideal Self-Discrepancy		.22*
Ought Self-Discrepancy		.17
Step 3: Social Comparison Variables	.11*	
Peer Social Comparison		.14
Celebrity Social Comparison		.28*
Step 4: Interaction Variables	.02	
PeerSCxOughtSD		.15
CelebSCxIdealSD		-.03

*Note.* Age coded as 18 = 1, 19 = 2, 20 = 3, 21 = 4, 22+ = 5; Gender coded as Male = 1, Female = 2; Race coded as White = 1, All Other = 2

\* $p < .05$

### Hypothesis 3

Hypothesis 3 predicted that ought self-discrepancy would be significantly and positively associated with experiencing feelings of agitation while looking at photos on Instagram, and that ideal self-discrepancy would be significantly and positively associated with experiencing feelings of dejection when looking at photos on Instagram. Results of the hierarchical multiple

regression analyses conducted with predictor variables ought and ideal self-discrepancy and criterion variables agitation and dejection are reported in tables 4 and 5, respectively.

**Ought Self-Discrepancy.** In support of H3a, ought self-discrepancy positively predicted feelings of agitation ( $p = .004$ ). However, ought self-discrepancy was also a significant positive predictor of dejection ( $p = .001$ ).

**Ideal Self-Discrepancy.** Contrary to H3b, ideal self-discrepancy did not predict feelings of dejection, nor did it predict agitation. Thus, H3 was partially supported.

Table 4

*Hierarchical Multiple Regression Analysis Predicting Agitation from Self-Discrepancy Variables*

Predictor	$\Delta R^2$	$\beta$
Step 1: Student Demographics	.03	
Age		.14
Gender		.11
Race		-.07
Step 2: Self-Discrepancy Variables	.09*	
Ideal Self-Discrepancy		-.05
Ought Self-Discrepancy		.34*

*Note.* Age coded as 18 = 1, 19 = 2, 20 = 3, 21 = 4, 22+ = 5; Gender coded as Male = 1, Female = 2; Race coded as White = 1, All Other = 2

\* $p < .05$



Table 5

*Hierarchical Multiple Regression Analysis Predicting Dejection from Self-Discrepancy**Variables*

Predictor	$\Delta R^2$	$\beta$
Step 1: Student Demographics	.05	
Age		.11
Gender		.20*
Race		-.03
Step 2: Self-Discrepancy Variables	.14*	
Ideal Self-Discrepancy		.02
Ought Self-Discrepancy		.36*

*Note.* Age coded as 18 = 1, 19 = 2, 20 = 3, 21 = 4, 22+ = 5; Gender coded as Male = 1, Female = 2; Race coded as White = 1, All Other = 2

\* $p < .05$

**Hypothesis 4**

Hypothesis 4 predicted that the relationship between engaging in upward social comparison with peers and celebrities and the experience of body shame would be stronger for females than for males. Results (in Table 2) did not reveal a significant interaction between gender and celebrity or peer-targeted upward social comparison. Thus, H4 was not supported as the relationship between upward social comparison and body shame did not differ between male and female participants.

### Discussion

As hypothesized, engaging in upward social comparison with both celebrities and peers on Instagram predicted feelings of body shame among participants. Contrary to predictions, the strength of this relationship did not differ by self-discrepancy status. Regarding effect sizes, the findings of this study are modest. However, when considering that social comparison explained the same amount of variance as self-discrepancy, these results are meaningful. Indeed, when the target of comparison was a celebrity, the relationship between upward social comparison and body shame remained significant across all levels of self-discrepancy. In other words, regardless of discrepancy status, the more participants reported engaging in social comparison with celebrities, the more body shame they reported experiencing. This finding did not reach statistical significance with peer-targeted social comparison, indicating that there may be subtle differences in the consequences of making comparisons with celebrities on Instagram versus one's own peers. For instance, celebrities may represent more unrealistic comparison targets than peers do, thus increasing the likelihood that individuals will feel ashamed when they fail to attain this ideal "Hollywood" body type. Furthermore, results revealed no evidence of gender moderation. That is, there did not appear to be any statistically significant differences between males and females in the relationship between upward social comparison and body shame, despite previous research suggesting that female body image may be impacted more strongly by social comparison processes (Ho et al., 2016; Jones, 2001; Myers & Crowther, 2009; Strahan et al., 2007).

Taken together, these findings are valuable, as they suggest that even Instagram users who seem "resistant" or less vulnerable to negative body image effects—such as males and individuals low in self-discrepancy—might be adversely affected by upward social comparison

behaviors in the same way that seemingly more vulnerable individuals are. Indeed, if a user frequently compares themselves to the peers and celebrities they follow on Instagram, they may be more likely to experience body shame, independent of their gender or appearance-related self-discrepancy status. The fact that less self-discrepant individuals were as likely to report feeling body shame as more self-discrepant individuals when engaging in upward social comparison speaks to the distinct power of social comparison processes in the social media space, where individuals do not necessarily use social comparison as a “measuring stick” by which to evaluate themselves relative to their own self-guides as McIntyre and Eisenstadt (2010) proposed. Rather, users need only evaluate themselves relative to celebrity and/or peer comparison targets to experience the negative body image effects associated with this process. Similarly, the observation that male social comparers may be equally as affected as female social comparers in this sample aligns with Perloff’s (2014) explanation that exposure to social media can be impactful for male users due to the wide availability of muscular images on these platforms for men to compare with themselves. Such images may be more prevalent in the age of social media, when anyone can be a content creator and strategically share photos that represent their positive attributes while downplaying or digitally editing any flaws.

In line with previous body image research, it seems that engaging in upward social comparison on Instagram may entail risks similar to those reported on traditional media platforms such as television (Botta, 1999) and magazines (Tiggemann & McGill, 2004), as well as social networking websites such as Facebook (Fardouly et al., 2015; Ho et al., 2016), all of which have supported social comparison’s role in the relationship between media consumption and body dissatisfaction. This phenomenon is likely due to the vast abundance of photos posted on Instagram each day, providing users with countless opportunities to compare their physical

features to those of friends and various fashion models, movie stars, or musicians who have carefully curated ideal online self-representations. However, whether image-based social media platforms such as Instagram have a *stronger* relationship with negative body image outcomes than traditional forms of media has yet to be discovered. It well may be that the unique characteristics of these platforms, such as the use of editing tools and self-presentation strategies like “selfie” posting, lend themselves to heightened levels of body image dissatisfaction among both male and female users.

Finally, beyond social comparison and body shame, results of the present study showed that ideal self-discrepancy was not correlated with feelings of dejection when using Instagram as originally expected. This surprising result may possibly be explained by a ceiling effect, in which an interaction was not observed between ideal self-discrepancy and either mood variable due to the lack of variation in ideal self-discrepancy scores. Compared to ought self-discrepancy levels, which varied considerably around zero ( $M = 0.48$ ), ideal self-discrepancy scores were all relatively high ( $M = 1.65$ ), thereby potentially preventing us from observing a relationship between ideal self-discrepancy and agitation or dejection.

Ought self-discrepancy, on the other hand, was correlated with *both* agitation and dejection, despite the prediction that it would correlate only with agitation. Although modest in size, this interesting finding contradicts prior research on self-discrepancy, possibly indicating something different about individuals' moods while viewing photos on Instagram that is distinct from the emotional experience reported by individuals more generally. Moreover, discovering comorbidity between the emotional experiences of agitation and dejection in the present study is not altogether surprising considering the high comorbidity rates of depression and anxiety (Hirschfield, 2001). In combination with these research findings, the fact that social media use

has in recent years been tied to a number of negative psychological outcomes (Kross et al., 2013; Satici & Uysal, 2015) underscores a need to further evaluate the mental health consequences associated with Instagram use, particularly with regards to viewing photographs.

### **Limitations**

Although considerable measures were taken to ensure reliability and validity, the present study is not without a number of limitations, which may have impacted findings. Firstly, this convenience sample, which was relatively modest and limited to college students enrolled in a Communication Studies course at a large Midwestern university, is not representative of all Instagram users, who span multiple age groups and geographic regions.

Additionally, these research findings are correlational and thus causal claims cannot be made about the relationships between variables. For instance, it may be that individuals with higher levels of body shame more often engage in social comparison on Instagram because they want to see how their “shameful” physical features measure up to others’ physical features. Similarly, individuals experiencing high levels of agitation and dejection may be more worried about, or hyperaware of, the way others perceive them, therefore leading them to believe that their appearance is more discrepant from their peers’ expectations.

Moreover, the mood checklist and upward social comparison scales used to measure participants’ levels of agitation, dejection, and tendency to compare with peers and celebrities, were not originally developed with social media in mind. Instead, these measures were adapted for the purpose of the present study in order to fit the context of Instagram use. Although the scale items were highly correlated with one another, it is possible that a better measure of these variables may exist, which can more accurately capture users’ psychological experiences while using image-based social media platforms.

### **Future Directions**

In order to yield generalizable results that more accurately capture how viewing photos on Instagram impacts the broader population of users worldwide, future researchers should consider replicating this investigation with larger, more diverse samples. Future investigations should also seek to experimentally test the relationship between upward social comparison on Instagram and body shame, as well as Instagram users' self-discrepancy levels and mood while using the platform, as a way of addressing the shortcomings associated with the correlational nature of this study. Keeping in mind the potential errors with current measurement tools, another aim for researchers in subsequent studies may be to hone in on a scale that reliably measures social comparison and mood variables in the specific context of Instagram.

These preliminary findings suggest an overall necessity for further investigation of the ways users engage in upward social comparison not only on Instagram, but on other image-based social media platforms as well, such as Snapchat, a growing application with over 161 million daily active users ("Snapchat by the Numbers," 2017). In doing so, researchers can uncover whether these results are unique only to Instagram or whether they apply to image-based social media platforms more broadly.

Results of the present study also point to a necessity for increased investigation of male body image, an under-researched area worthy of consideration, especially in the era of social media, when men may engage in upward social comparison with others more readily than ever due to the constant flow of images they are bombarded with across image-based platforms. To expand our understanding of social media use and male body image, such investigations can seek to qualitatively explain the ways in which male users engage in social comparison on these

platforms, as well as specifically explore how body shame manifests itself among these individuals.

Finally, it may be of interest to examine how engagement in social comparison on Instagram may translate into physical variables beyond the psychological experience of body shame, such as excessive exercising and disordered eating, as previous research on other forms of media has indicated an association between social comparison processes and these types of behavioral outcomes (Botta, 2003; Kim & Lennon, 2007; Smith et al., 2013). A number of diet and fitness accounts have gained popularity across Instagram, offering users weight loss and muscle-gaining tips. Unfortunately, it is possible that these types of accounts may encourage users to engage in unhealthy behaviors to achieve a “fit” body type, such as drinking “detox teas” and wearing “waist trainers.” As such, there is a wealth of uncharted territory on Instagram in terms of behavioral risks for users who are dissatisfied with their body image.

Although modest in effect size, the results of this study introduce the possibility that Instagram use may negatively impact male and female body image through upward social comparison processes. Furthermore, these findings highlight a possible association between viewing Instagram photos and experiencing agitation and dejection-related emotions among users high in ought self-discrepancy. Ultimately, the present study serves to introduce a number of new directions for research on media and body image, contributing to a growing dialogue on the potentially harmful implications of image-based social media use.

### References

- Bessenoff, G. R. (2006). Can the media affect us? Social comparison, self-discrepancy and the thin ideal. *Psychology of Women Quarterly*, 30, 239-251.
- Bessenoff, G. R., & Snow, D. (2006, October 17). Absorbing society's influence: Body image self-discrepancy and internalized shame. *Sex Roles*, 54, 727-731. doi:10.1007/s11199-006-9038-7
- Botta, R. (1999). Television images and adolescent girls' body image disturbance. *J Communication Journal of Communication*, 49(2), 22-41. doi:10.1111/j.1460-2466.1999.tb02791.x
- Botta, R. (2003). For your health? The relationship between magazine reading and adolescents' body image and eating disturbances. *Sex Roles*, 48(9), 389-399. doi:10.1023/A:1023570326812
- Burke, M., & Kraut, R. E. (2016). The relationship between facebook use and well-being depends on communication type and tie strength. *Journal of Computer-Mediated Communication*, 21(4), 265-281. doi:10.1111/jcc4.12162
- Cash, T. F., Cash, D. W., & Butters, J. W. (1983). "Mirror, mirror, on the wall...?": Contrast effects and self-evaluations of physical attractiveness. *Personality and Social Psychology Bulletin*, 9(3), 351-358. doi:10.1177/0146167283093004
- Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of facebook "friends:": Social capital and college students' use of online social network sites. *Journal of Computer-Mediated Communication*, 12(4), 1143-1168. doi:10.1111/j.1083-6101.2007.00367.x



- Fardouly, J., Diedrichs, P. C., Vartanian, L. R., & Halliwell, E. (2015, March). Social comparisons on social media: The impact of Facebook on young women's body image concerns and mood. *Body Image, 13*, 38-45. doi: 10.1016/j.bodyim.2014.12.002
- Fardouly, J., & Vartanian, L. R. (2016). Social media and body image concerns: Current research and future directions. *Current Opinion in Psychology, 9*, 1-5.  
doi:10.1016/j.copsyc.2015.09.005
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations, 7*(2), 117-140.  
doi:10.1177/001872675400700202
- Grabe, S., Hyde, J. S., & Lindberg, S. M. (2007). Body objectification and depression in adolescents: The role of gender, shame, and rumination. *Psychology of Women Quarterly, 31*(2), 164-175. doi:10.1111/j.1471-6402.2007.00350.x
- Grabe, S., Ward, L. M., & Hyde, J. S. (2008). The role of the media in body image concerns among women: A meta-analysis of experimental and correlational studies. *Psychological Bulletin, 134*(3), 460-476. doi:10.1037/0033-2909.134.3.460
- Harrison, K., Taylor, L. D., & Marske, A. L. (2006, December). Women's and men's eating behavior following exposure to ideal-body images and texts. *Communication Research, 33*(6), 507-529. doi:10.1177/0093650206293247
- Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review, 94*(3), 319-340. doi:10.1037//0033-295x.94.3.319
- Higgins, E. T., Bond, R. N., Klein, R., & Strauman, T. (1986). Self-discrepancies and emotional vulnerability: How magnitude, accessibility, and type of discrepancy influence affect. *Journal of Personality and Social Psychology, 51*, 1-15.

- Hirschfield, R. M. (2001). The comorbidity of major depression and anxiety disorders. *The Primary Care Companion to The Journal of Clinical Psychiatry*, 03(06), 244-254.  
doi:10.4088/pcc.v03n0609
- Ho, S. S., Lee, E. W., & Liao, Y. (2016). Social network sites, friends, and celebrities: The roles of social comparison and celebrity involvement in adolescents body image dissatisfaction. *Social Media Society*, 2(3). doi:10.1177/2056305116664216
- Jones, D. C. (2001, November). Social comparison and body image: attractiveness comparisons to models and peers among adolescent girls and boys. *Sex Roles*, 45, 645-664.  
doi:10.1023/A:1014815725852
- Kim, J., & Lennon, S. J. (2007). Mass media and self-esteem, body image, and eating disorder tendencies. *Clothing and Textiles Research Journal*, 25(1), 3-23.  
doi:10.1177/0887302x06296873
- Kross, E., Verduyn, P., Demiralp, E., Park, J., Lee, D. S., Lin, N., . . . Ybarra, O. (2013). Facebook use predicts declines in subjective well-being in young adults. *PLoS ONE*, 8(8). doi:10.1371/journal.pone.0069841
- Leahey, T. M., & Crowther, J. H. (2008). An ecological momentary assessment of comparison target as a moderator of the effects of appearance-focused social comparisons. *Body Image*, 5(3), 307-311. doi:10.1016/j.bodyim.2008.03.002
- Manago, A. M., Ward, L. M., Lemm, K. M., Reed, L., & Seabrook, R. (2014). Facebook involvement, objectified body consciousness, body shame, and sexual assertiveness in college women and men. *Sex Roles*, 72(1-2), 1-14. doi:10.1007/s11199-014-0441-1
- Mcintyre, K. P., & Eisenstadt, D. (2010). Social comparison as a self-regulatory measuring stick. *PsycEXTRA Dataset*. doi:10.1037/e651432007-001

- Monro, F., & Huon, G. (2005). Media-portrayed idealized images, body shame, and appearance anxiety. *Int. J. Eat. Disord. International Journal of Eating Disorders*, 38(1), 85-90.  
doi:10.1002/eat.20153
- Mustapic, J., Marcinko, D., & Vargek, P. (2015). Eating behaviours in adolescent girls: The role of body shame and body dissatisfaction. *Eating and Weight Disorders - Studies on Anorexia, Bulimia and Obesity*, 20(3), 329-335. doi:10.1007/s40519-015-0183-2
- Myers, T. A., & Crowther, J. H. (2009). Social comparison as a predictor of body dissatisfaction: A meta-analytic review. *Journal of Abnormal Psychology*, 118(4), 683-698.  
doi:10.1037/a0016763
- Noll, S. M., & Fredrickson, B. L. (1998). A mediational model linking self-objectification, body shame, and disordered eating. *Psychology of Women Quarterly*, 22(4), 623-636.  
doi:10.1111/j.1471-6402.1998.tb00181.x
- Number of monthly active Instagram users from January 2013 to June 2016. (2016, June). Retrieved October 08, 2016, from <https://www.statista.com/statistics/253577/number-of-monthly-active-instagram-users/>
- O'Brien, K. S., Caputi, P., Minto, R., Peoples, G., Hooper, C., Kell, S., & Sawley, E. (2009). Upward and downward physical appearance comparisons: Development of scales and examination of predictive qualities. *Body Image*, 6(3), 201-206.  
doi:10.1016/j.bodyim.2009.03.003
- Pepin, G., & Endresz, N. (2015). Facebook, Instagram, Pinterest and co.: Body image and social media. *Journal of Eating Disorders*, 3(Suppl 1). doi:10.1186/2050-2974-3-s1-o22

- Perloff, R. M. (2014, December). Social media effects on young women's body image concerns: theoretical perspectives and an agenda for research. *Sex Roles, 71*(11), 363-377. doi: 10.1007/s11199-014-0384-6
- Satici, S. A., & Uysal, R. (2015). Well-being and problematic Facebook use. *Computers in Human Behavior, 49*, 185-190. doi:10.1016/j.chb.2015.03.005
- Smith, A. R., Hames, J. L., & Joiner, T. E. (2013). Status update: Maladaptive Facebook usage predicts increases in body dissatisfaction and bulimic symptoms. *Journal of Affective Disorders, 149*(1-3), 235-240. doi:10.1016/j.jad.2013.01.032
- Snapchat by the numbers: 161 million daily users in Q4 2016, users visit 18 times a day. (2017, February 02). Retrieved March 28, 2017, from <https://venturebeat.com/2017/02/02/snapchat-by-the-numbers-161-million-daily-users-in-q4-2016-users-visit-18-times-a-day/>
- Social spotlight: US Instagram users in 7 key charts. (2016, August). Retrieved October 08, 2016, from <https://www.emarketer.com/corporate/coverage/be-prepared-instagram/>
- Strahan, E. J., Wilson, A. E., Cressman, K. E., & Buote, V. M. (2006). Comparing to perfection: How cultural norms for appearance affect social comparisons and self-image. *Body Image, 3*(3), 211-227. doi:10.1016/j.bodyim.2006.07.004
- Strauman, T. J., & Higgins, E. T. (1987). Automatic activation of self-discrepancies and emotional syndromes: When cognitive structures influence affect. *Journal of Personality and Social Psychology, 53*(6), 1004-1014. doi:10.1037//0022-3514.53.6.1004
- Tiggemann, M., & McGill, B. (2004). The role of social comparison in the effect of magazine advertisements on women's mood and body dissatisfaction. *Journal of Social and Clinical Psychology, 23*(1), 23-44. Retrieved from

<http://proxy.lib.umich.edu/login?url=http://search.proquest.com.proxy.lib.umich.edu/docview/224666037?accountid=14667>

Troop, N. A., & Redshaw, C. (2012). General shame and bodily shame in eating disorders: A 2.5-year longitudinal study. *European Eating Disorders Review*, 20(5), 373-378.

doi:10.1002/erv.2160

Vigil, T. R., & Wu, H. D. (2015). Facebook users' engagement and perceived life satisfaction.

*Media and Communication MaC*, 3(1), 5. doi:10.17645/mac.v3i1.199

Vogel, E. A., Rose, J. P., Roberts, L. R., & Eckles, K. (2014). Social media, social comparison, and self-esteem. *PsycEXTRA Dataset*. doi:10.1037/e512142015-699

Wang, R., Yang, F., & Haigh, M. M. (2016). Let me take a selfie: Exploring the psychological effects of posting and viewing selfies and groupies on social media. *Telematics and Informatics*. doi:10.1016/j.tele.2016.07.004