DO IMAGES OF AESTHETIC AND NON-AESTHETIC FEMALE ATHLETES HAVE THE SAME IMPACT ON OBJECTIFICATION?

A Thesis
by
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Abstract

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Female athletes are often depicted in a sexualizing and objectifying manner. Building off objectification theory, previous research has illustrated that when women view sexualized images of female athletes, they report increased self-objectification compared to viewing performance images. Viewing performance images is thought to be beneficial and empowering. However, past research has not yet parsed apart these images by sport type (aesthetic vs. non-aesthetic). Prior research has also demonstrated that the visual process used when viewing sexualized women is different than when viewing sexualized men. Visual processes may provide insight into why viewing sexualized images of female athletes prompts differing self-objectification. The present study combined what is known concerning images of female athletes and visual attention to expand on what images prompt more self-objectification, and whether the focal point of those images offers explanations as to why. Participants were randomized to view sexualized vs. performance images of the same female athletes from either aesthetic or non aesthetic sports, and then completed a measure of self-objectification and body surveillance. A heat map measure was used to examine visual attention to images. No differences emerged in

ratings of self-objectification or body surveillance after exposure to either sport types or image types. However, the type of image viewed did impact visual fixations in terms of self-selected interest points. Findings suggest that type of sport may not be as influential on self-objectification in the viewer as participants in those particular sports. Results also highlight important distinctions between measures of state and traits self-objectification in media-based intervention studies. Additionally, the possibility that the dichotomization of "sexy" vs. "powerful" when women view sexualized female athletes is changing is discussed.

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Do Images of Aesthetic and Non-Aesthetic Female Athletes Have the Same Impact on Self-Objectification?

Images of female athletes have traditionally emphasized their sexuality more so than their abilities (Frisby, 2017; Salwen & Wood, 1994), perhaps undermining the potential empowerment benefit they could afford to female viewers. The popularity of women's sports, however, has begun to challenge these traditional depictions. Despite evidence that exposure to images of female athletes performing their sport can reduce the self-objectification that so commonly occurs when women see sexualized images of other women, whether this varies as a function of sport type is unclear (Daniels 2009; Linder & Daniels, 2017). Building on previous research and theories concerning self-objectification, the present study sought to investigate whether all images of female athletes are empowering and beneficial to women, or if a sport emphasizing the physical appearance of the athlete (aesthetic sports) versus one that does not (non-aesthetic) moderates the influence of these images on women's own body perception.

Images of Women and Female Athletes

Women have not always had the opportunity to participate in sports. Traditionally, women were not allowed to compete in sports that were deemed too rough for their "delicate sensibilities." It was believed that participating in rough sports could diminish a woman's reproductive ability (History.org, 2010). Although this thinking declined, it still had lasting effects throughout history. For a period of time, women were allowed to participate in some sports such as country club sports like tennis and swimming (History.org, 2010). Once women were allowed to participate in sports without fear of reproductive consequences, opportunities were still unequal. While men were able to compete in competitive collegiate athletics, women were only able to partake in recreational intramural sports. For example, professional baseball

began in 1876 for men, however, women were not granted access until 1943, when the All-American Girls Baseball Team was formed (Bell, 2007; History.com 2010). This only occurred because Major League Baseball (MLB) was canceled due to World War II (Bell, 2007). The All-American Girls Baseball Team only lasted about 12 years and did not translate to women's modern-day presence in MLB. Instead, a coexisting sport was created for women, softball.

The passing of Title IX in 1972 by the U.S. Congress saw slow but steady change toward greater equality between men and women in terms of scholarships, access to supplies, scheduling, and other sporting opportunities (National Collegiate Athletic Association [NCAA], 2017). The legislation "prohibits discrimination on the basis of sex in any federally funded education program or activity" (The United States Department of Justice). For example, in 1972, women's participation in collegiate athletics was 15%. This increased to 43% by 2001 (Bell, 2007). Every year since the passing of Title IX, the opportunities for participation in sports has increased for men and women (NCAA, 2017). With more opportunities, interest in women's sports by viewers has shown commercial success in revenue generation, with some sports having more success than those of their male counterparts (e.g., the women's national soccer team has generated more revenue than the men's team in recent years and obtained more viewership when competing (Hess, 2019).

Layered on top of such inequities in women's sports, female athletes are still depicted in more traditional ways, with a focus on their beauty and youthfulness, and as secondary to men (Frisby, 2017; Salwen & Wood, 1994). This emphasis on physical appearance can be observed via media outlets, even those alleged to be targeted toward athleticism. For example, Salwen and Wood (1994) investigated the ways in which female athletes appeared on the cover of *Sports Illustrated* from 1957 to 1989 (and how often women were depicted relative to men). They found

that male athletes (95.6%) appeared more often on the cover than female athletes (4.4%). Furthermore, when women were on the cover, they were depicted in an objectifying manner, in which their body was emphasized rather than their athletic capability. Males, by contrast, were typically shown in active poses, engaged in their sports, and wearing their uniform (unlike women who were more likely to be depicted in passive, non-active poses). This objectifying depiction may not be unique to female athletes and sports magazines. Bazzini et al. (2015) used a content analysis of men's and women's health magazines to illustrate greater objectification of female cover images.

A more recent study, examining covers from January 2012 to December 2016, revealed that this has not changed since 1989. Frisby (2017) conducted a similar study assessing the occurrence of female athletes on the covers of *Sports Illustrated* as well as *ESPN*. Across the 109 covers of *Sports Illustrated* and *ESPN* magazine examined, only 12% of the covers featured female athletes, with 88% focusing on male athletes. Through a content analysis, it was also found that female athletes are oftentimes portrayed in sexualized poses, dressed minimally and provocatively, and not pictured in their uniform or engaged in team sport. Frisby argued that female athletes are still depicted in a sexualized and objectified manner, with an emphasis on beauty-related body features rather than their athletic capability.

In summary, despite the increases in women's participation in professional sports over the decades (NCAA 2017), women are less represented than their male athletic counterparts and when they are seen they tend to be sexualized and portrayed through an objectifying lens (Frisby, 2017; Salwen & Wood, 1994). Female athletes are still more likely to be seen in a passive, highly sexualized manner rather than performing their sport. The influence of observing such images has been the topic of recent investigation surrounding female body image.

Sexual vs Performance Athletic Images

Objectification Theory, coined by Fredrickson and Roberts (1997), postulates that women are treated, viewed, and evaluated as objects rather than human beings. When viewing a woman, the viewer attends to a woman's features more as an object to be admired rather than a human being. This has implications for how women are treated, as well as how they view themselves. A component of Objectification Theory includes the idea that women can internalize being objectified to the point that they view themselves as objects. This is defined as self-objectification. Increased self-objectification has been linked to negative outcomes such as restrictive and disordered eating as well as depressive symptoms (Muehlenkamp & Saris-Baglama, 2002).

Media has been implicated by Fredrickson and Roberts (1997) as a common source of messaging that reinforces female objectification. This effect has been identified in a multitude of ways across different studies. For example, Karsay et al.'s (2017) meta-analysis of published research from 1997 to 2016 found experimental evidence of a moderate-to-small effect size for increased self-objectification after being exposed to sexualizing media content across 50 studies. When looking at studies using college student samples, however, the effect size was robust. In such studies, exposure was generally induced via thin-ideal models and celebrities (as compared to non-sexualized images or no images) followed by measures of women's state self-objectification.

Daniels (2009) was among the first to identify the potentially divergent implications of exposure to depictions of professional female athletes in either physically active depictions or sexual poses for female audiences. It was predicted that in line with objectification theory, viewing an image focused on an athlete's ability rather than their physical features would reduce

objectification. Images promoting the physical beauty of the athlete instead were alleged to instigate an objectifying gaze. The objectifying gaze refers to evaluating a person as an object to be looked upon, rather than a human being. This is particularly likely to evoke attention to sexual body parts, rather than the face (Fredrickson & Roberts, 1997) . As mentioned previously, within Objectification Theory, self-objectification can occur due to internalizing the objectifying gaze. Thus, images that increase the likelihood of prompting the objectifying gaze should subsequently increase the likelihood of self-objectification in the viewer. In turn, images that decrease the objectifying gaze may consecutively decrease self-objectification in the viewer.

Daniels (2009) showed college-aged women photographs of five female athletes wearing bikini bathing suits, in passive and sexually suggestive poses (sexual condition), or five different female athletes (from an array of sports) in active poses, engaged in their sports (performance condition). To increase the ecological validity of the study, Daniels evaluated the images for similarity across attractiveness, age, and affect. Following exposure to the images, the participants completed the revised State Self-Objectification Scale (Fredrickson & Roberts, 1997), in which women respond to the statement, "I am _____." Responses were then sorted into categories that included self-objectifying and physicality self-descriptors. Self-objectifying statements were any statement in which the female focused on one of their bodily or physical features (e.g., "I am blonde", "I am fat"). Physicality self-descriptors were categorized as statements about the participants' character traits (e.g., "I am good at water polo", "I am weak"). Daniels (2009) found that in the sexual condition, women made more self-objectifying statements rather than physicality self-descriptors. In the performance condition, women made more physicality self-descriptors rather than self-objectifying statements. Results were interpreted as demonstrating a potentially buffering effect for self-objectification when viewing

performance images. Due to these results, Daniels called for more performance images of female athletes in the media.

To decrease possible extraneous variables related to using different athletes across conditions, and increase gender-related aspects of the previous research, Linder and Daniels (2017) used a similar methodology to Daniels (2009) but used the same five athletes (from multiple sports) for both the sexual and performance conditions. They also were intentional in making sure that in all conditions, three-quarters of the body, as well as the face, were shown. Like in previous research, they found that the women in the sexual condition made more self-objectifying statements than physicality self-descriptors. The self-objectifying statements were also more often in a negative tone (e.g., I am ugly). In the performance condition, the female participants used more physicality self-descriptors than self-objectifying statements. However, when they did make self-objectifying statements, they were more often in a positive tone (e.g., I am strong).

Visual Attention and the Objectifying Gaze

Previous studies have shown that the type of image a viewer sees influences self-objectification. Although Daniels (2009) and Linder and Daniels (2017) found that sexualized images of female athletes elicited more objectifying self-descriptive phrases related to beauty than did performance images, it is unclear whether women attended to different elements of those images. One possibility is that the visual focal point of each image is different for performance compared to sexualized images, which may then prompt more or less self-objectification. Sexual images may be more stereotypical for how one processes information about women, and thus, attention to sexual body parts might emerge when shown such stimuli.

This is supported by Bernard et al. (2012), who demonstrated that images of women may prompt differential attentional orientations than images of men, especially when they are sexualized. They illustrated how visual processing of images of men and women is different by utilizing an inversion identification task. Participants viewed images of men and women, in which some were inverted, and then completed a recognition task. If recognition scores were better for upright stimuli compared to inverted stimuli, then it was classified as configural processing. In turn, when recognition scores for inverted stimuli were better compared to upright stimuli, this was considered analytical processing. Results indicated that recognition for images of inverted sexualized females was more accurate compared to images of inverted sexualized men, indicating that sexualized females were more likely to be perceived analytically rather than configuraly. The researchers argued that this analytical processing of women's bodies was more similar to how objects are viewed than human bodies. A second study by Bernard et al. (2015b) expanded on the research by showing that the cognitive objectification of women's bodies was due largely to better recognition of women's body parts than women's whole bodies. It is important to note that sexualized depictions of women make salient such body elements as the breasts and torso. In the case of displays of females in provocative poses, the prominence of sexual body parts likely increases the visual process favoring objectification of that woman.

One way of measuring the aspect of an image to where viewers must attend (examining where the viewer's gaze falls) is by using eye-tracking technology. One of the first studies that used eye-tracking to measure the objectifying gaze that can be prompted by an image was conducted by Gervais et al. (2013). The objectifying gaze is illustrated by where and how others view them; such as eyes lingering on their sexual body parts rather than their faces (Fredrickson & Roberts, 1997). Gervais et al. (2013) posited that body shapes with features that were

considered to be high, low, or average with regard to ideals of cultural standards of female attractiveness would influence the objectifying gaze. They used photoshopped images to manipulate breast sizes and waist-to-hip ratios of female targets (ensuring that modified images were equally realistic in appearance to reduce suspicion). The high ideal body included large breasts and a small waist-to-hip ratio, illustrating an hourglass figure. The average ideal body consisted of average breast sizes and an average waist-to-hip ratio. For the low ideal body, the models were portrayed with small breasts and a large waist-to-hip ratio. Gervais et al. also manipulated instructional sets prior to viewing the images, with participants being told either to focus on the model's appearance or their personality. They found an interaction between instructional set and image type such that participants instructed to focus on appearance fixated less on the models' face and more on the models' chest, especially for high ideal body shapes. This type of process may be similar when viewing sexual images of female athletes. Sexual images, where the focal point is on the athlete's physical assets, may initiate a similar process relative to performance images.

In the case of female athletic images, performance images may elicit more configural processing of the woman, similar to the processing of male bodies, with a focus on compositional elements equally (Bernard et al., 2012). By illuminating multi-dimensional aspects of a woman, they may initiate a more humanizing lens through which to see women than when depicted more sexually. In fact, Bernard et al. (2015a) were able to reduce the analytical processing of women's bodies by either masking sexual body parts during the inverted body recognition task or adding descriptive humanizing information about the woman that was read before participants completed the task. task. This may translate to the visual processing of sexual versus performance images of female athletes. Sexualized images of athletes seem likely to

induce analytic processing. They may make sexual body parts more salient than more active images, for which a woman's form is processed as a whole. Performance images may provide greater personalization of the female athlete, promoting configural processing as seen with images of men (Bernard et al., 2012; Bernard et al., 2015b). Furthermore, like Gervais et al.'s (2013) instructional set to focus on personality traits, images that focus on a woman performing her sport may elicit greater attention to her head and face rather than to her sexual body parts. To date, however, I am unaware of an investigation that has evaluated whether visual attention and fixations vary when examining sport-related versus sexual images of female athletes.

Sports Type: Aesthetic vs. Non-Aesthetic

Among the factors that have been under-explored in determining how female athletic images influence women's self-objectification is whether sport types serve a moderating function. That is, although previous research on athletic images and body image have incorporated female athletes from multiple sports, none have specifically assessed the potential influence of sport type on these outcomes. Sports can be categorized in numerous ways. For example, some sports are labeled as lean or non-lean (Petrie, 1996). In addition, sports can be categorized as aesthetic or non-aesthetic based on the means by which an athlete is evaluated in that sporting arena (Calabrese & Kirkendal, 1983; Kantanista et al., 2018). For an aesthetic sport, the athlete's appearance is part of the criterion for their score, such as gymnastics or cheerleading. In non-aesthetic sports, the athlete's appearance does not affect their score, such as basketball (Calabrese & Kirkendal, 1983; Kantanista et al., 2018). However, there is contradicting research on whether one sport or the other increases the likelihood of negative effects such as self-objectification, body dissatisfaction, and eating disorders for the women who participate in them. There is some evidence connecting aesthetic sports to weight concerns, a

desire to be thinner in young girls, and higher levels of body dissatisfaction (Davison et al., 2002; Ferrand et al., 2007; Lombardo et al., 2012; Swami et al., 2009). Aesthetic athletes may experience more negative effects because of the appearance-based nature of the sport, as well as the expectation of thinness and adherence to beauty ideals. The appearance of aesthetic athletes in many cases is more like that of sexualized images of female athletes. Often their uniforms show more skin and their style is more form-fitting than for non-aesthetic sports. Aesthetic athletes' appearances are often altered by make-up and hairstyling that compliments a dramatic performance (e.g., ice skating or gymnastics). This again is most likely due to the fact that their appearance is a component of their ultimate athletic outcome.

If, as suggested by Daniels (2009) and Linder and Daniels (2017), sexualized images increase self-objectification because attention focuses away from an athlete's athletic ability and shifts more to her appearance, this would seem to be more pronounced for sports with a greater emphasis on the appearance of a female athlete (aesthetic) relative to one that is not as appearance-focused (non-aesthetic). Sexualized images of athletes are similar to images of aesthetic sport athletes in that the focus is in part on the athlete's appearance. Based on this idea, it is possible that an observer is more likely to view the body of a non-aesthetic sport athlete as a powerful tool (a body with capabilities), while aesthetic sport athletes' bodies may still be vulnerable to an objectifying gaze (objects to be admired). Viewing an athlete in an objectifying manner may increase the viewer's self-objectification or self-scrutiny. Past research such as Daniels (2009), and Linder and Daniels (2017) used a mix of aesthetic and non-aesthetic sports but did not discriminate between them. A systematic evaluation of how particular aesthetic vs. non-aesthetic sports influence self-objectification processes in women has yet to be conducted.

Purpose of the Present Study

In summary, previous research supports that the media's depictions of female athletes continue to portray them in sexual poses (Frisby, 2017; Salwen & Wood, 1994), and foster the perspective of seeing these women as sexual objects rather than competent athletes (Daniels & Wartena, 2011; Kane & Maxwell, 2011). It has been found that viewing sexual images leads to more negative and self-objectifying statements by women (Daniels 2009; Linder & Daniels, 2017) relative to viewing comparative images of women performing their sports. The research to date has not conducted a controlled evaluation of whether types of sports interact with types of athlete images to impact body evaluations of women and personal self-objectification. Thus, the current study aimed to address this gap in the literature regarding whether aesthetic vs. non-aesthetic sports moderates the relationship between exposure to sexualized versus performance-based images of female athletes and increased self-objectification on the part of an observer. In doing so, it sought to hold constant such things like body position, and amount of skin exposure for the athlete in the stimulus photograph. One issue with studies involving photos of athletes is that it is difficult to control for confounding variables due to differences in the stimulus photos. The present study attempted to clarify whether performance images across sports serve as potentially buffering agents against objectification, with attention to more uniform aspects of those images.

Furthermore, previous researchers (e.g., Daniels, 2009; Linder & Daniels, 2017) have not evaluated whether female viewers attend to different facets of the stimulus images in terms of attention to sexual body parts. The second purpose of the current study was to assess visual attention that occurs when women view sexualized vs. performance images across sport types.

The study utilized a 2 (Sport Type: Non-Aesthetic vs. Aesthetic) X 2 (Image Type: Sexual vs. Performance) factorial design to assess participants' levels of SO and visual fixations. Participants were randomly assigned to view one of the four types of stimulus images. They were assessed for the objectifying gaze via a heat map of interest point areas, and completed measures of self-objectification. To my knowledge, this is one of the first studies to utilize interest points as a way to measure the objectifying gaze. This methodology has been found to correlate with eye-tracking (Masciocchi et al., 2009). The predictions were as follows:

Hypothesis 1: A main effect for image type was predicted such that viewing performance images of female athletes will be associated with less self-objectification, but enhanced body competence perceptions (i.e., higher self-objectification scores compared to lower self-objectification scores) compared to viewing sexualized images of the same athletes. By contrast, I predicted that viewing sexualized images of female athletes would increase self-objectification, but decrease perceptions of body competence (i.e., ranking beauty self-objectifying descriptors higher than physicality self-descriptors) in contrast to those in the performance conditions.

Hypothesis 2: A main effect for sport type was expected such that viewing images of aesthetic sport athletes would increase self-objectification, and decrease body competence perceptions (i.e., lower self-objectification scores compared to higher self-objectification scores) compared to viewing non-aesthetic sport athletes. In turn, I predicted that viewing images of non-aesthetic sport athletes would decrease self-objectification, while increasing perceptions of body competence (i.e., ranking beauty self-objectifying descriptors higher than physicality self-descriptors) compared to viewing aesthetic sport athletes.

Hypothesis 3: An interaction was expected between sport type and image type such that viewing performance images of aesthetic sports athletes would prompt increased self-

objectification (i.e., ranking beauty self-objectifying descriptors higher than physicality self-descriptors) compared to performance images of non-aesthetic athletes. No significant differences were expected on self-descriptors of self-objectification for sexual images across levels of sport type.

Hypothesis 4: If sexual images promote an objectifying gaze, prompting more analytical processing of women, a main effect was predicted to occur such that sexual images would prompt more fixations on sexual body parts (torsos) than performance images.

Hypothesis 5: A main effect was also expected for sport type such that viewing images of aesthetic sport athletes will prompt more fixations on sexual body parts than images of non-aesthetic sport athletes.

Hypothesis 6: An interaction was expected between sport type and image type such that, non-aesthetic sport athletes shown in sexual images would prompt more attention to sexual body parts than non-aesthetic sport athletes shown in performance images. No differences were expected to emerge for attention to sexual body parts across levels of image type (sexual versus performance) of aesthetic sport athletes.

Method

Participants

Participants consisted of a convenience sample that was recruited through SONA from a midsized, southeastern university. Participants received course credit for their participation. Originally 193 participants were obtained, however, 14 were removed for not completing the survey. Of the remaining 179 participants, one was removed due to being a man, while another was removed for using an iPhone instead of a desktop or laptop. Thus, 177 participants remained. At least 19.8 percent of the participants identified as not-heterosexual (2.8%

Homosexual, 11.9% Bi-sexual, 5.1% Queer), 79.1 percent of particpants reported that they identify at straight, while the remaining 1.1% prefered not to say. Participants had a mean BMI of 24.5 (*SD* = 5.22), which is considered to be normal (CDC, 2020).The large number of non-heterosexual identifying participants prompted a consideration that sexual attraction could play a role in decreasing self-objectification. Sexual orientation was subsequently dummy coded as (Straight = 1, Homosexual = 2, Bi-sexual = 3, Queer = 4, Prefer not to say = 5). It was then included in a 2 (Sexual Orientation: heterosexual vs not-heterosexual) X 2 (Image Type: sexual vs performance) X 2 (Sport Type: aesthetic vs non-aesthetic) ANCOVA to address possible interactions with the manipulated variables on reports of objectification. Covairates included BMI and previous sport participation. It did not significantly alter the outcomes, No significant effects emerged across factors, all *ps* > .05, and thus, will not be discussed further.

The majority of participants reported that they were White (155 participants; 87.6%) The remaining reported demographics identified as Black (9 participants; 5.1%), Other (8 participants 4.5%), Asian (2 participants1.1%), and Latinx (2 participants1.1%), and Hispanic (1 participant; 0.6%) women. Participants were mostly not collegiate athletes 166 (93.8%), and only 11 participants reported that they were (6.2%). However, the majority of participants (158 or 89.3%) did report that they, at some point, had participated in sports. The remaining 19 (10.7%) reported that they did not participate in sports. Those who participated in sports were asked to report what sport(s) they participated in, which were coded as aesthetic, non-aesthetic, both, or no response. Of those who participated in sports, it was reported that 96 (54.2%) participated in only non-aesthetic sports. Forty-five participants (25.4%) listed both aesthetic and non-aesthetic sports that they participated in. Finally, 17 (9.6%) listed aesthetic sports.

Materials

Images of Female Athletes: Images of both aesthetic and non-aesthetic athletes were included. For each image category, there were five female athletes. Each had a sexual and analog performance image. The athletes were the same non-aesthetic and aesthetic athletes across performance and sexual conditions. Photos were found using the athlete's Instagram accounts as well as a google search. The non-aesthetic athletes included Abby Dahlkemper (Soccer), Natasha Hastings (Track), Megan Rapinoe (Soccer), Alex Morgan (Soccer), and Serena Williams (Tennis). The aesthetic athletes chosen were Aly Raisman (Gymnastics), Misty Copeland (Ballet), Tanith Belbin (Ice Skating), Katarina Witt (Ice Skating), and Simone Biles (Gymnastics). Their photos were chosen based on their similarity in body position, facial expression, and conformity to societal expectations.

Manipulation Check for Photos: In order to assess the pictures used, manipulation check questions were implemented. These included a 7-point Likert-scale ratings of agreement (or disagreement) with statements concerning the familiarity, sexiness, attractiveness, and powerfulness of each athlete in each image. In this scale 1 indicates "Strongly agree" and 7 indicates "Strongly Disagree," thus higher scores indicate less agreement with the statements.

Self-Objectification Questionnaire: The Self-Objectification Questionnaire from Noll and Fredrickson (1998) was utilized as the primary measure of self-objectification. This measure assesses the degree to which participants objectify their own forms. Participants ranked a list of body attributes by how important each is to their physical self-concept with 1 indicating "Most Important" and 12 "Least Important." There are two categories of attributes: appearance-based and competence-based. The appearance-based attributes include physical attractiveness, coloring, weight, sex appeal, measurements, and muscle tone. The competence-based attributes

consist of muscular strength, physical coordination, stamina, health, physical fitness, and physical energy levels. Possible scores range from -36 to 36. Higher scores indicate the respondents' emphasis on appearance-based attributes as more important than competence-based attributes. This measure has been found to correlate positively and significantly with the Appearance Anxiety Questionnaire (Dion et al., 1990) and the Body Image Assessment (Williamson et al., 1989), thus indicating satisfactory construct reliability.

Body Surveillance: To measure the extent to which participants survey their body's appearance, body surveillance was measured using the Body Surveillance subscale of the Objectified Body Consciousness Scale (McKinley & Hyde, 1996). This measure consists of eight items that assess how often an individual watches their appearance and experiences their body in terms of how it looks. All but Questions 5 and 6 were reverse scored. This measure utilizes a 7-point Likert scale in which responses range from 1 (strongly disagree) to 7 (strongly agree). Possible responses can range from 8 to 56. Higher scores indicate more body surveillance. When this measure was given to 151 undergraduate women, internal consistencies were high with a Cronbach's alpha of 0.89 (McKinley & Hyde, 1996).

Interest Points Measure: Similar to the methodology used by Masciocchi et al. (2009), the present study had participants self-select "interest points" on each photo they viewed. The present study will measure visual attention by having participants select where their gaze is fixating, similar to a free viewing task. Due to Covid-19, utilization of eye-tracking technology was hampered due to restrictions in in-person testing contact. However, Masciocchi et al. (2009) found that among participants, the points selected as "most interesting" by their participants when viewing an image were highly consistent with previous measures of eye-tracking fixation points. After comparing this methodology to eye-tracking, they also found that eye-movement

patterns and the ranking method of interest points were both correlated with a bottom-up saliency map model. While their experiment focuses on observing a scene, it may be beneficial in determining how observers process an image of a female athlete. This would be potentially insightful when comparing that to results of self-objectification. It is possible that this type of bottom-up processing may be salient and in turn influence how the observer assesses themselves.

The present study sought to use a similar methodology in which participants were told to "please use the mouse to click wherever you look on the picture, each time you look (if you look at something more than once)." Areas of the athlete's body were categorized as sexual or non-sexual to allow the researchers to quantify the areas of the body which are selected most. Sexual areas include the torso. Non-sexual areas include the face and arms. Participants were able to click up to ten times on each image. Each click constituted a point value. Participants were given feedback in terms of small circles to indicate where they clicked on the image. A ratio of the number of clicks per picture was calculated for sexual (torso region) and non-sexual areas (facial region) relative to the total number of clicks made on the picture.

Qualtrics survey: The measures and photos were embedded within a Qualtrics survey. The ending of the survey included a debriefing statement and available resources for the participants. It is possible that viewing the images or taking the scales caused discomfort to the participants. To mitigate these negative feelings these resources showed the artificial nature of media and included body positivity content.

Demographics and manipulation check: Participants were prompted to provide demographic information including their weight and height so that their BMIs could be calculated. Participants were also prompted to report their athletic history using open-ended questions. These questions included, "Are you currently a collegiate athlete," "Do you participate in any

intramural/recreational sports," "What sport did you play," and "How long did you participate in that sport (in years)." Participants also provided their ethnicities. To ensure that participants actively attended to the images, questions regarding how powerful, familiar, sexy, and attractive the athletes are, appeared following each image. Assessments of powerfulness and sexiness served as manipulation checks. Familiarity and attractiveness ratings were meant to examine the extent to which confounding variables were controlled.

Procedure

Participants were recruited through SONA. After giving consent, they completed the Qualtrics survey. The participants were randomly selected to view one of four image sets. They saw a set of five pictures from one of the following; sexual non-aesthetic, sexual aesthetic, performance non-aesthetic, and performance aesthetic. Participants first viewed the photos and completed the manipulation check questions. They then viewed them again while completing the interest point measure. While viewing each photo, one at a time, participants completed the interest point measure for each image. After viewing five of the photos in one of the conditions, the participants completed the State-Self Objectification measure (not included in the forthcoming analyses) and Self-Objectification questionnaire. Next participants completed a Body image measure, as well as the Body Surveillance measure. Finally, participants answered the demographic questions. Once all the measures were completed, the participants were debriefed and provided with additional resources concerning body positivity and the artificial nature of the media.

Planned Statistical Analysis

Design

The current study included a 2 X 2 independent-groups factorial ANOVA. The first independent variable was type of sport: aesthetic or non-aesthetic. The second independent variable was type of image: sexual or performance. The first dependent variables included the self-objectification, body surveillance, and attention to sexual body parts as measured by the number of mouse clicks administered to the torso for the athlete.The latter two measures were exploratory in nature. Post-hoc analyses were used to elaborate upon any significant effects that are identified.

Results

Stimulus Photo Manipulation Checks

To determine whether the experimental manipulations of images were successful, ratings of familiarity, sexiness, powerfulness, and attractiveness were submitted to a 2 (Sport Type) X 2 (Image Type) factorial ANOVAs.

Ratings of athlete familiarity demonstrated a main effect for sport type, $F(1, 173) = 5.52$, $p = .02$, $\eta^2_p = 0.03$. A post hoc analysis revealed aesthetic athletes were rated as less familiar ($M = 3.32$, $SD = 0.76$) than non-aesthetic athletes ($M = 2.29$, $SD = 0.94$, $p = .02$). No other effects emerged, *ns*.

For ratings of sexiness of the athlete, the 2 (Sport Type) X 2 (Image Type) ANOVA also revealed a significant main effect for image type, $F(1, 173) = 16.55$, $p < .001$, $\eta^2_p = 0.09$. Sexual images ($M = 2.20$, $SD = 0.74$) were rated as sexier than the performance images ($M = 2.80$, $SD = 0.77$). This suggests that the images chosen to constitute as sexy versions of the performance images were successful.

A 2 (Sport Type) X 2 (Image Type) ANOVA also revealed a significant type of image main effect for powerful ratings $F(3, 173) = 14.33$, $p < .001$, $\eta^2_p = 0.08$. Performance images ($M = 1.58$, $SD = 0.528$) were rated as more powerful than the sexual images ($M = 1.91$, $SD = 0.60$). This too demonstrates that the images meant to appear as performance images were seen as more so than the sexual images, suggesting a successful manipulation.

Despite the use of the same female athletes for each image type, A 2 (Sport Type) X 2 (Image Type) ANOVA also revealed a main effect for type of image on ratings of attractiveness, $F(1, 173) = 6.97$, $p = .009$, $\eta^2_p = 0.04$. Performance images ($M = 2.03$, $SD = 0.67$) were rated as less attractive than their sexual counterparts ($M = 1.78$, $SD = 0.57$), see Table 1.

Main Hypotheses

In order to test Hypothesis 1, 2, and 3, a 2 (Sport Type) X 2 (Image Type) Factorial ANOVA was conducted on the Self-Objectification Questionnaire scores. Results indicated that there were no main effects for sport type [$F(1,173) = .000059$, $p = .994$], image type [$F(1,173) = 1.32$, $p = .25$], and no significant interaction between the two [$F(1,173) = .25$, $p = .61$] (see Table 2 for additional means and standard deviations).

Additionally, a 2 (Sport Type) X 2 (Image Type) Factorial ANOVA was run on the exploratory measure of body surveillance. Results indicated no significant differences in body surveillance scores across conditions, see Table 2. Results demonstrated that there were no main effect for sport type [$F(1,173) = 0.15$, $p = .70$], image type [$F(1,173) = 0.14$, $p = .71$], or interaction between both factors [$F(1,173) = 0.08$, $p = .78$] emerged.

In order to test hypotheses 4, 5, and 6, a 2 (Image Type) x 2 (Sport Type) factorial ANOVA was conducted. Visual attention was indicated by the heat map measure of mouse clicks on the torso. Participants who did not click on the images were excluded from these

analyses (n = 26). When distinguished by condition, those who did not click were relatively even; 6 from the aesthetic sexual condition, 4 from the aesthetic performance condition, and 8 from both the sexual and performance non-aesthetic conditions. A significant sport type X image type interaction occurred, $F(1,158) = 5.19$, $p = .024$, $\eta^2_p = 0.032$. A post hoc analysis revealed that participants who viewed non-aesthetic athletes in sexual poses had more mouse clicks on the athlete's torso (M =1.81, SD = 1.37) compared to those who viewed non-aesthetic athletes in performance poses (M =1.02, SD = 1.08), $t(158)$= 2.98, p = .017). No differences emerged for mouse clicks for those women who viewed aesthetic athletes, who were sexualized (M = 1.41, SD = 1.20) or performance based (M = 1.49, SD = 1.20), *ns*. See Figure 1.

Discussion

The current study sought to extend previous research, which found that exposure to sexualized images of professional female athletes can increase feelings of self-objectification for women relative to performance images (Daniels, 2009; Linder & Daniels, 2017). Specifically, this study examined whether the nature of the sport (aesthetic vs. non-aesthetic) might attenuate or augment this influence. Previous studies have not standardized body position across all five athletes shown to participants, and not addressed whether photos prompted attention to particular body regions. This study sought to improve upon methodological inconsistencies (Daniels, 2009; Linder & Daniels, 2017) by attending to specific elements of photos that might unintentionally confound image type and object orientation in the frame. I also included a supplemental measure of attention in the form of a heat-mapping index.

The current study did not support my prediction regarding SO, nor replicate previous research in terms of increased levels of SO for participants who viewed sexualized images of athletes. Unlike Daniels, (2009) and Linder and Daniels (2017), exposure to sexualized female

athletes did not increase reports of SO relative to performance images. Additionally, whether a sport was more focused on the appearance of the athlete (aesthetic sports such as gymnastics) or was not (non-aesthetic sports like soccer) failed to influence reports of SO. In retrospect, one of the main reasons that this inconsistency may have occurred is because of how SO was operationalized across studies. At the time of this study's creation, it was thought that the self-objectification questionnaire measure used was fitting of SO. However, after trying to understand the null results, it was discovered that this measure has been better suited for trait levels of SO. Originally, the present study was going to use the same SO measure as past research. Daniels (2009) and Linder and Daniels (2017) used a modified version of the State Self-Objectification (SSO), which was developed by Fredrickson et al. (1998). This scale was originally created to assess the extent of people's perceptions concerning their self-concept (Kuhn & McPartland, 1954). This measure was utilized by Fredrickson et al. (1998) to measure participants' levels of state SO. Recall, this measure consists of participants completing sentences beginning with "I am". These sentences are then coded to determine whether the statements are self-objectifying in nature (e.g., refer to physical attributes rather than competence based attributes). Using this measure, sexual stimuli have been shown to increase SO relative to performance images.

By contrast, the current study used the Self-Objectification Questionnaire (SOQ), which was developed by Noll and Fredrickson (1998). This scale was developed to determine the extent to which one's evaluation of their attributes would change depending on their exposure to different stimuli. Participants are prompted to rate a series of statements relating to either appearance-based traits (e.g., weight or physical attractiveness) and competence-based attributes (e.g., health or muscular strength) in terms of importance to them. When it was decided to use this measure, the researchers were unaware that it was better suited to measure trait levels of SO.

Indeed, previous research does not always distinguish between whether a given study was measuring trait vs state SO by name, but rather uses a universal term of SO (Calogero et al., 2005; Daniels, 2009; Linder & Daniels, 2017; Strelan & Hargreaves, 2005). In fact, when using this measure of SO, all of the previously mentioned studies do not use the terminology of trait or state SO, even though they differ in using either the SSO or the SSQ.

Past research in this area has investigated whether state levels of SO can be manipulated in college-aged women by the nature of the images shown (Daniels, 2009; Linder & Daniels, 2017). Trait SO refers to women who are more susceptible to the objectifying culture around them, and thus, internalize objectification more fully (Miner-Rubino et al., 2002). Indeed it was hypothesized that trait-self objectification was an individual difference in women, meaning that it may not be as easily manipulated as state SO. Miner-Rubino et al. (2002) investigated the nature of trait self-objectification as a personality trait and found that it was distinct in its own right compared to body shame, agreeableness, and intellect. They found that trait self-objectification accounted for unique variance that was not accounted for by other personality traits such as the Big Five that are associated with negative affect, indicating that trait self-objectification was its own unique concept.

In hindsight, the measure of SO I utilized may not have been sensitive to the media exposure after all. Previous investigations have compared what the SOQ is capable of measuring compared to the SSO (Kahalon et al., 2018). As its name suggests, the SSO was found to measure state levels of self-objectification (Miner-Rubino et al., 2002). Fredrickson and Roberts (1997) described self-objectification to be both a trait and as well as a state that is vulnerable to induction. The SOQ was developed to understand the individual differences in trait self-objectification (Fredrickson et al., 1998). Thus, the ranking of attributes would likely not be

affected by a manipulation that was originally designed for the state-self objectification measure. Trait SO was explained to be a trait that was developed through long-term exposure to one's culture (Fredrickson & Roberts, 1997). Thus, this measure should remain stable, and would likely be resistant to short-term situational influences.

In the current study, the decision had been made to use the SOQ to circumvent potential problems of use of coders in scoring the SSO. Indeed, some researchers have called out the validity of this measure's original version. Some researchers have suggested that its open-ended nature and use of subjective coding may lead to a misunderstanding of the participant's original intent (Alm et al., 1972). They too acknowledge that there may be differences in responses due to demand characteristics of the experimental setting.

In addition, these non-significant results make sense when paired with the non-significant results concerning the body surveillance scale. Indeed, Miner-Rubino et al. (2002) found these measures to be highly correlated ($r = 0.63$, $p < .001$). This study contributes to the understanding of these two types of self-objectification and further corroborates the notion that trait self-objectification and state self-objectification are two distinct concepts that require different measures to detect.

However, the present study did attempt to control for confounding elements within the pictures used (unlike previous research). The reduction in potential confounds may have minimized the influence that these images have on body-related judgements, including SO and body surveillance.

Another factor that might have contributed to image exposure's lack of impact over SO are cultural influences surrounding body positivity and female empowerment. It has been speculated by researchers in the field that the culture and perspective of sexual images have

changed such that images are no longer just evaluated as sexy or powerful separately (Bruce, 2016; Daniels et al., 2021). Indeed, Daniels et al. (2021) investigated this new phenomenon by exposing participants to either sexualized, sexualized performance, sport performance, or non-sexualized images of athletes, and then assessing their attitudes towards the athletes they saw. The images used in the sexualized performance condition were from ESPN's *The Body Issue*, a provocative depiction of naked athletes engaged in sports-specific actions. They found that participants' attitudes toward athletes did differ based on the image type viewed. Athletes in the sport performance condition (athletes were shown in their uniform engaged in their sport) had the most positive ratings followed by athletes in the sexualized performance condition (athletes were depicted in poses replicating actions that they would normally be in for their sport, while being naked). Sexualized athletes (where athletes were shown in sexual poses) had the lowest ratings. Daniels et al. (2021) and Bruce (2016) argue that instead of viewing sexualized images of athletes as either sexy or empowering (or pretty or powerful), women now are starting to view them as both: sexy and empowering. Perhaps this new perspective has attenuated the effects of viewing these types of images. Indeed, Daniels et al. (2021) demonstrates that there can be a qualitative difference in image type besides being only sexy or only powerful. Thus, the present study's lack of significant results may be due to some of the images being a mix of sexy and performance. The results of the present study, which demonstrated no differences in SO scores between those who viewed the non-aesthetic and aesthetic sexual and performance images, would support this notion. Although, manipulation checks did find that these photos were ranked as significantly sexier in the sexual condition, and more powerful in the performance condition.

It seemed reasonable to argue that aesthetic sports highlight elements of sexualized images because they highlight the physical attributes of the athlete, not only just their athletical

attributes. Despite the fact appearance is crucial for sports such as gymnastics or ice-skating, it does not impact a non-aesthetic athlete's performance (Calabrese & Kirkendal, 1983; Kantanista et al., 2018). Due to the appearance based nature of aesthetic sports, it was hypothesized that images of athletes engaging in these sports would increase self-objectification more so than images of athletes from non-aesthetic sports. Indeed there has not been a study before the present that has compared these two sports to each other, however research has been conducted on the impact participating in aesthetic sports has on athletes. While there is some inconsistent research on the effects that participating in aesthetic sports has on the athletes, there is research that indicates aesthetic sports can be related to weight concerns, a desire to be thinner in young girls, and higher levels of body dissatisfaction (Davison et al., 2002; Ferrand et al., 2007; Lombardo et al., 2012; Swami et al., 2009). These connections supported the notion that viewing athletes engaged in these sports might have an impact on one's body image such as SO. However, the static nature of the images, and potential distance from self if someone does not participate in the sport (the majority of our women engaged in sport for recreation), may negate any potentially harmful influences on one's body concept.

I did not find evidence to support that the appearance-based nature of aesthetic sport images increased SO relative to non-aesthetic images. However, there was no significant difference in SO for the participants in any of the image types or sport types. It may be that the difference in sports does not pertain to their difference of aesthetic versus non-aesthetic but rather the body type of the athlete. Indeed, there is research to support the potential impact of lean and non-lean sports on body-image related constructs. The sports are categorized as those in which having a "lean" physique is considered to be an advantage or is encouraged such as running (McDonald et al., 2019; Petrie, 1996). Specifically, it has been demonstrated that

participation in lean sports was linked to more disordered eating than participation in non-lean sports (McDonald et al., 2019; Petrie, 1996; Sherwood et al., 2002; Wells et al., 2015). Thus, it is feasible that the body type of the athletes may be more influential over SO than whether the sport is more appearance based in nature.

What is interesting is that predictions regarding where participants would indicate focusing their attention (the heat map measure) were partially supported. Despite images' failure to influence women's reported body surveillance and SO, the heat map index of visual attention tells an interesting story. When asked to indicate to what body elements their attention was directed, my participants did seem to be affected by the images they viewed. Recall that the torso of the athletes are coded to be sexual, while the faces and arms are non-sexual. It was predicted that viewing the sexualized images and the aesthetic images would prompt more visual fixations on the torsos of the athletes. These predictions were based on previous research, which found that viewing sexual versus non-sexual images prompted different types of visual processing (Bernard et al., 2012, 2015b; Gervais et al., 2013). Sexualized versions of images prompted more analytical processing, (believed to be more similar to how objects are viewed) rather than configural processing.

Although sport type or image type alone did not prompt more directed attention to the torso of female athletes, the predicted interaction between the two was supported. When non-aesthetic sports were depicted, sexualized images drew more attention to the torso than did performance images. By contrast, aesthetic images drew similar amounts of attention to sexual body parts regardless of image type. This supports the notion that images of aesthetic athletes may be evaluated more similarly to sexual images due to the emphasis placed on their appearance, thus producing no differences in visual fixations across image types. Only non-

aesthetic images, where elements of the athletes appearance (e.g., clothings worn) are not as central to the sport, polarize the visual elements of sexualized vs. performance photographs. If there was not a qualitative difference in terms of the appearance-based nature for aesthetic sports, then there should have been a similar effect in which the sexual images yielded more visual fixations on the torso compared to the performance. This is the first suggestive evidence that depictions of aesthetic athletes performing their sports may not have as an empowering influence on women as non-aesthetic sports, possibly due to the beauty emphasis embedded in the sports.

Albeit this methodology was an exploratory alternative to use of an eye tracker to measure visual fixations, Masciocchi et al. (2009) found that when viewing scenic images, participants' self-selected interest points were correlated with their visual fixations measured by eye-tracking. However, it is unclear as to whether more fixations were on sexual body parts in some cases because skin was exposed. It is difficult to find images of athletes in which their performance and sexual images are equal in skin exposure. These possible confounding variables are discussed further in the limitations section.

Limitations

An analysis of the manipulation check questions concerning the athlete images revealed that attractiveness was not held constant across image type conditions. Thus, it is possible that the attractiveness of the targets confounded my manipulation of the sexiness of the targets. However, this is not unique to the present study. Past research has had a similar problem in which sexual athletes were deemed more attractive than their non-sexual counterparts (Daniels, 2009; Linder & Daniels, 2017; Nezlek et al., 2015). Researchers have used different methods to account for this. Linder and Daniels (2017) removed photos in which the attraction levels

differed both significantly and largely. Although the present study had significant differences in ratings, athletes in both the sexual and performance conditions were skewed toward high attractiveness ratings, suggesting that both sets of athletes were considered to be attractive. Similarly, Daniels (2009) only removed athletes who were considered unattractive, not necessarily less attractive than the sexual images. Indeed, Daniels et al. (2021) acknowledge that their sexual athletes were not deemed significantly more attractive than the performance images; these results differed from past research. Attractiveness and sexiness, although purportedly different constructs, do seem to be often correlated (Daniels, 2009; Linder & Daniels, 2017; Nezlek et al., 2015). While trying to maintain control over variables such as body positions, facial expressions, and skin exposed some compromises had to be made concerning the images used. Some of the photos in the performance condition may not have been active enough to be deemed performance images, but rather non-sexual images. The athletes were depicted in their uniforms; however, they were not all actively engaged in their sport, and some of the poses were passive rather than active. Moreover, the photos were not consistent in position and skin exposure across athletes. Some of the pictures included did not have both arms in view while others included both. There were also some pictures in which the torso was visible while in others it was covered.

In addition, while using the self-selected interest points (Masciocchi et al., 2009) were a novel addition and supplied interesting data, it is impossible to know in this study whether they accurately reflected participants' eye movements. Masciocchi et al. used a scenic view, which arguably may not prompt the same levels of social desirability regarding one's awareness of where "clicks" were being made on the images of female athletes. Although participants in Masciocchi et al. (2009) most likely did not feel social pressures concerning where they clicked,

my participants may have been hesitant to select parts of the athletes' bodies that are more sexual in nature. This may have been exacerbated by the visual feedback provided by the heat map index. Participants were able to reflect upon where they were clicking. Seeing visual feedback of where they click may make some participants more self-aware of what they are viewing and in turn cause them to feel uncomfortable or change their natural viewing behavior. Indeed, this has been demonstrated through eye-tracking (Risko & Kingstone, 2011). Furthermore, the amount of clicks between participants was highly variable. Participants were not consistent in the amount of clicks per image, and some participants did not click on the images and skipped the question. I intentionally did not require that the participants select a specific number of clicks to move forward in the survey so that it would be more reflective of a free viewing eye-tracking task. However, this did allow for some participants to simply skip the question or only select one point, thus decreasing variability among participants. Mouse-clicks ranged anywhere from no clicks to clicking all ten times. In the future, it will be necessary to compare how accurate participants are with their self-selected interest points on images of people by comparing the interest points to eye-tracking data.

Furthermore, the study is underpowered. A power analysis projected that 300 participants were needed (G*Power); however after data collection and removing necessary participants only 177 participants remained. Another limitation was that the survey did not ask participants about their age. Despite the fact that all participants consented that they were above the age of 18, it is impossible to tell what the possible age range was. It is possible, while not likely, that there were some older participants which may affect the results due to generational or age differences.

Additionally, there is some concern for the validity of the SOQ. Some researchers have suggested that instead of using a ranking method, a Likert scale would be more appropriate.

Wollast et al. (2021) posit that the use of a Likert scale would be more beneficial and possibly meaningful. In their study, they found that the two dimensions (appearance-based and competence-attributes) used in the original questionnaire were independent of each other and should be treated as such. They also cited how a large percent (32%) of the sample was unable to follow the directions of the ranking instructions. However, the present study did not have that same problem, as all the participants included did change the order of the statements to reflect their desired order. Future research should adjust this measure in the survey so that it utilizes a Likert scale.

Future research should also investigate different avenues for what seems to be most influential on different women. Past research has only included heterosexual women because they felt that possible sexual attraction may distract from or possibly prevent the images' ability to influence participants' self-objectification. Additionally, it has been speculated that ethnicity may also influence self-objectification. Daniels (2009) and Linder and Daniels (2017) used only images of White athletes because the majority of her sample would be White. She speculated that seeing images of athletes who are the same race as the participant (increasing similarity) might be more influential. The current study included athletes of multiple ethnicities, but the majority of respondents were White. It should be investigated to determine whether ethnicity (or similarity) is a moderating influence on SO. This may explain why the current study did not replicate previous research.

Conclusions

The media continues to portray women in sexualized contexts, even when they have achieved distinction for their athletics abilities (Frisby, 2017; Salwen & Wood, 1994). The sexualization of athletes does not endorse positive feelings about the athletes' competence and

further has been shown to prompt self-objectification in young women (Daniels 2009; Daniels & Wartena, 2011; Kane & Maxwell, 2011; Linder & Daniels, 2017). However, the full story is not yet understood. The present study sought to build on previous research and improve upon it by using a novel methodology. This is the first study, to my knowledge, that looked to parse apart any possible effects arising from differences in aesthetic versus non-aesthetic sports. Furthermore, this study established that there may be other methodologies that compliment eye-tracking, such as self-selected interest points.

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Table 1

Means and SDs of Four Manipulation Check Assessments (Sexiness, Familiarity, Attractiveness, and Powerfulness) for Sexual vs. Performance Images of Aesthetic and Non-Aesthetic Athletes

Aesthetic Athletes	Sexy		Familiar		Attractive		Powerful	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Aly Raismen								
Sexual	2.33	0.95	3.13	1.60	1.69	0.79	1.62	0.94
Performance	2.60	1.07	2.33	1.57	1.79	0.99	1.28	0.55
Misty Copeland								
Sexual	2.27	1.12	3.82	1.19	1.84	0.92	2.29	1.22
Performance	2.47	0.98	4.02	1.24	1.79	0.97	1.53	0.88
Tanith Belbin								
Sexual	2.29	0.94	3.98	1.08	2.02	0.89	2.87	1.14
Performance	2.44	1.14	4.28	1.03	1.91	1.00	2.14	0.94
Katarina Witt								
Sexual	2.36	1.00	3.71	1.20	1.82	0.65	1.93	0.86
Performance	3.07	0.94	4.23	1.04	2.44	1.05	2.02	1092
Simone Biles								
Sexual	2.31	1.08	1.44	1.01	1.69	0.67	1.31	0.60
Performance	2.86	0.89	1.40	0.79	1.98	1.06	1.21	0.56
Non-Aesthetic Athletes								
Abby Dahlkemper	1.98	0.89	3.62	1.30	1.49	0.66	1.71	0.73
Sexual	2.57	0.95	3.52	1.41	1.75	0.72	1.61	0.78
Performance								
Natasha Hastings	1.91	0.85	3.91	1.16	1.58	0.75	2.11	1.11
Sexual	2.50	0.90	3.70	1.30	1.77	0.73	1.23	0.42
Performance								
Megan Rapinoe								
Sexual	2.56	0.97	2.98	1.47	2.29	1.08	1.69	0.90
Performance	3.48	1.07	2.61	1.74	3.27	1.13	1.98	0.88
Serena Williams								
Sexual	2.02	0.97	1.78	1.17	1.64	0.83	1.29	0.63
Performance	2.41	1.02	1.68	1.33	1.95	0.91	1.18	0.45
Alex Morgan								
Sexual	1.98	0.92	3.00	1.48	1.71	0.84	2.24	1.11
Performance	2.20	1.11	2.52	1.47	1.59	0.69	1.66	0.78

*Note higher scores indicate less agreement that the athlete matches the descriptive word, while lower scores equals more agreement.

Table 2

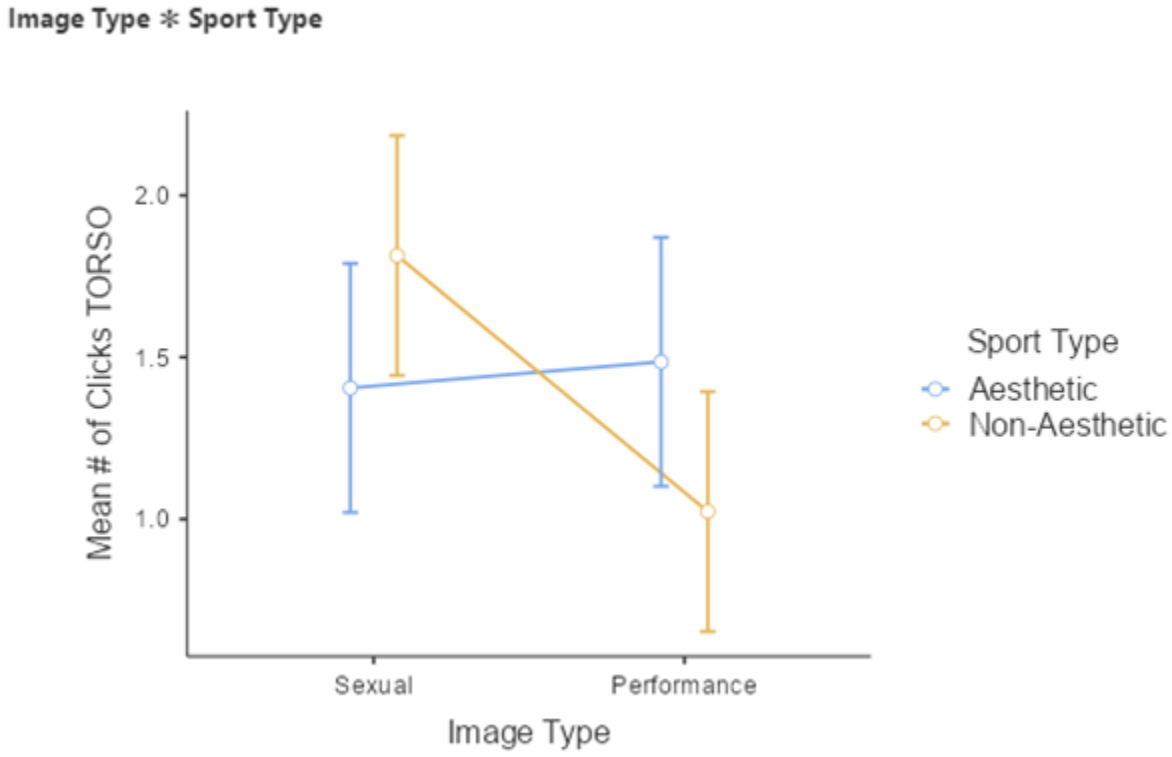
Means and SDs for Participants' Self-Objectification (SO) Scores, Body Surveillance (BS) Scores, and Mean number of Mouse Clicks on the Athletes' Torso.

SCORES	SO		BS		Mouse Clicks	
	M	*SD*	*M*	*SD*	*M*	*SD*
Aesthetic Sexual	-0.31	17.9	39.5	7.50	1.41	1.01
Aesthetic Performance	-4.79	17.6	39.5	8.74	1.49	1.35
Non-Aesthetic Sexual	-1.69	17.2	40.3	8.63	1.81	1.37
Non-Aesthetic Performance	-3.45	19.5	39.5	8.30	1.02	1.08

Note* Recall that lower or negative scores were equated to lower levels of self-objectification.

Figure 1

Mouse Clicks on the Torso (Sexual Body Parts) as a Function of Image Type (Sexual vs. Performance) X Sport Type (Aesthetic vs. Non-Aesthetic).



Vita

Micalee Segers was born in Knoxville, Tennessee to Mike and Cindy Segers. She graduated from Halls High School in May 2019. The following August, she entered Carson Newman University to study Elementary Education and Psychology. She was was awarded the Bachelor of Arts degrees in May 2019. In the fall of 2019, Micalee started her Master of Arts degree for Experimental Psychology at Appalachian State University. The M.A. will be awarded in December 2021. In August 2021, Micalee commenced work toward her Ph.D. in Experimental Psychology at the University of Tennessee Knoxville. Micalee currently resides in Knoxville with her cat, Bo.