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My Eyes Are Up Here:

The Nature of the Objectifying Gaze toward Women

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**Abstract**

Although objectification theory suggests that women frequently experience the objectifying gaze with many adverse consequences, there is scant research examining the nature and causes of the objectifying gaze for perceivers. The main purpose of this work was to examine the objectifying gaze toward women via eye tracking technology. A secondary purpose was to examine the impact of body shape on this objectifying gaze. To elicit the gaze, we asked participants (29 women, 36 men from a large Midwestern University in the U.S.), to focus on the appearance (vs. personality) of women and presented women with body shapes that fit cultural ideals of feminine attractiveness to varying degrees, including high ideal (i.e., hourglass-shaped women with large breasts and small waist-to-hip ratios), average ideal (with average breasts and average waist-to-hip ratios), and low ideal (i.e., with small breasts and large waist-to-hip ratios). Consistent with our main hypothesis, we found that participants focused on women’s chests and waists more and faces less when they were appearance-focused (vs. personality-focused). Moreover, we found that this effect was particularly pronounced for women with high (vs. average and low) ideal body shapes in line with hypotheses. Finally, compared to female participants, male participants showed an increased tendency to initially exhibit the objectifying gaze and they regarded women with high (vs. average and low) ideal body shapes more positively, regardless of whether they were appearance-focused or personality-focused. Implications for objectification and person perception theories are discussed.

*Keywords:* Sexual objectification, male gaze, objectifying gaze, dehumanization, person perception, impression formation, attractiveness, eye tracking

**Introduction**

Sexual objectification occurs when people separate women’s sexual body parts or functions from the entire person, reducing women to the status of mere instruments and regarding their bodies as capable of representing them (Fredrickson & Roberts, 1997). Perhaps the most ubiquitous indicator of sexual objectification in Western cultures is the objectifying gaze (Fredrickson & Roberts, 1997). The objectifying gaze is conceptualized as visually inspecting or staring at a woman’s body or sexual body parts (Fredrickson & Roberts, 1997; Kaschak, 1992; Mulvey, 1975; Moradi & Huang, 2008) and is often referred to as “ogling,” “leering at” or “checking out” women (Henley, 1977). Women are subject to the gaze in U.S. media when the camera lens focuses less on their faces and more on their sexual body parts (Archer, Iritani, Kimes, & Barrios, 1983). U.S. women also report experiencing objectifying gazes frequently during social interactions when other people stare at their sexual body parts (Kozee, Tylka, Augustus-Horvath, & Denchik, 2007). Less focus on the face and more focus on the body is clearly objectifying according to feminist scholars (Bartky, 1990) and not surprisingly, has several adverse consequences for women. The objectifying gaze causes social physique anxiety (Calogero, 2004), decreased cognitive performance (Gervais, Vescio, & Allen, 2011), and self-silencing (Saguy, Quinn, Dovidio, & Pratto, 2010) for U.S. women.

Despite the frequency with which women from Western cultures report being targeted by the objectifying gaze and the adverse consequences of the gaze, there is scant empirical evidence into the specific nature of the objectifying gaze and what causes people to exhibit it toward women in the first place. The purpose of the present research was to begin to fill this critical gap in the literature. Specifically, integrating objectification and person perception theories, we first suggested that a perceiver’s appearance-focus would impact the degree to which people gazed more at women’s body parts and less at their faces. We also explored whether body shape contributed to this objectifying gaze pattern. To test this, we manipulated appearance-focus and body shape and examined the gaze patterns toward women’s bodies utilizing eye tracking technology for undergraduate men and women from a Midwestern university in the U.S. Because the objectifying gaze is theorized to emerge in Western cultures, our sample consisted of men and women from the U.S. and the samples reported in the papers in our literature review are from the U.S. unless otherwise noted. However, we return to the cross-cultural implications—

whether the objectifying gaze would emerge in non-Western cultures—in the discussion.

**Objectification Theory and Person Perception**

During person perception, people quickly and effortlessly gain a wealth of information about others. Face perception is critical to initial person perception because it quickly provides important information regarding identity, social categories, emotions, behavioral intentions, and health (Ekman, 1993; Hall, Coats, & Smith LeBeau, 2005). Dual models of impression formation (Brewer, 1988; Fiske & Neuberg, 1990) for person perception, for example, suggest that people initially focus on facial features, including eyes, noses, cheeks, lips, and hair as a basis of gender categorization (Stangor, Lynch, Duan, & Glass, 1992). As a result, compared to other body parts, people tend to initially focus on the face, look at the face for longer durations, and return attention to the face more frequently than other body parts during person perception (Henderson, 2003; Henderson, Williams, & Castelhano, & Falk 2003; Morton & Johnson, 1991, see also Hewig, Trippe, Hecht, Straube, & Miltner, 2008 with a sample of German students).

Despite the clear importance of faces to person perception, objectification theory suggests that this focus on faces may be tempered while the focus on the body and sexual body parts in particular may be accentuated when people objectify women. Given that attention is a limited resource (Cowan, 2005; Miller, 1956), increased attention to women’s sexual body parts may come at the cost of attention to women’s faces. Through this process of *objectification*, people focus more on women’s bodies, particularly their sexual body parts and functions and less on their individuating and uniquely human parts, including their faces than during typical person perception. This purportedly manifests in the objectifying gaze in which people look at women’s bodies and sexual body parts (Archer et al., 1983; Fredrickson & Roberts, 1997, Mulvey, 1975). Consistent with the idea that women experience the objectifying gaze, anecdotal evidence from the media depicts men as unable to stop themselves from staring at women’s breasts and women are often depicted as telling men to stop ogling their breasts and to instead focus on their faces through statements such as “my eyes are up here.” Empirical evidence also shows that women report frequently noticing people “leering” at their body parts (Kozee et al., 2007, p. 181). Although both anecdotes and research on women’s self-reported objectification experiences suggest that people sometimes focus less on their faces and more on their bodies and sexual body parts, direct empirical evidence of the nature of the objectifying gaze is lacking.

**Predictors of the Objectifying Gaze**

We suggest that appearance-focus will trigger the objectifying gaze, which was operationalized as focusing more on women’s bodies and less on their faces (e.g., Archer et al., 1983; Fredrickson & Roberts, 1997). According to objectification theory, Western cultures and men treat women as if their appearance is the primary basis of their worth and women are chronically looked at and evaluated by other people to determine whether their appearance fits cultural ideals of beauty, thereby determining their overall value (Fredrickson & Roberts, 1997, see also Bartky, 1990). Although situations that elicit an appearance-focus may be associated with focusing on women’s facial features (e.g., white teeth, shiny hair, wide eyes, red lips, symmetric features), women’s bodies (e.g., thinness, an hourglass figure) are also central to evaluating whether they are attractive or not. Thus, when individuals adopt an appearance-focus while looking at women, they may focus even more on their bodies and their sexual body parts, leaving fewer attentional resources for their faces, than in other situations when non-appearance aspects of women are more salient (e.g., their physical health, their personality, their goals).

Although not directly tested with respect to the objectifying gaze, appearance-focus has been shown to be a robust contributor to objectified perceptions. In a study conducted with Australian undergraduates, for example, Strelan and Hargreaves (2005) found that individual differences in self-objectification (i.e., regarding one’s own appearance attributes as more important than non-appearance attributes), predicted other-objectification (i.e., regarding other people’s appearance attributes as more important than non-appearance attributes). Appearance-focus also has been linked to negative social perceptions and dehumanization. To illustrate, Heflick and colleagues (Heflick & Goldenberg, 2009; Heflick & Goldenberg, 2011; Heflick, Goldenberg, Cooper, & Puvia, 2011; see also Latrofa & Vaes, 2012, with a sample of Italian students) have found that when people were experimentally primed to focus on a woman’s appearance, they were less likely to attribute human characteristics, including ascribing her less warmth, less competence, and less morality.

Two complementary sets of studies from the attractiveness and person perception literatures utilizing eye tracking technology also provide indirect evidence for our suggestion that people may exhibit the objectifying gaze when they focus on other people’s appearance. Specifically, utilizing samples of men from New Zealand, Dixson, Grimshaw, Linklater, and Dixson (2010; 2011) found that when men assessed the attractiveness of nude women, more visual attention was directed toward women’s breasts and waists than their faces. Considered through the lens of objectification theory, it is hard to imagine that an attractiveness-focus with women who are extremely sexualized could prompt anything but objectification. However, it is possible that this gaze pattern would not emerge if a non-objectifying focus was introduced (e.g., participants were asked to assess the women’s personalities) or if the women were not already presented in an objectifying manner (e.g., fully clothed). At the very least, most women (e.g., friends, co-workers, classmates, family members, strangers, potential romantic partners) in social interactions are fully clothed. When nude, people’s attention may naturally be drawn to those body parts that are concealed by women’s clothes during most interpersonal interactions. Furthermore, rating nude women on attractiveness may prompt sexual motives, causing people to gaze toward those body parts that are sexually attractive due to cultural (e.g., breasts, Young, 2003) or evolutionary (e.g., waist-to-hip ratio, Yu & Shepard, 1998) influences. However, objectification theory posits that the power of the objectifying gaze rests in the reality that it can be directed at any woman at any time (Fredrickson & Roberts, 1997). Because it is less expected, it could be even more problematic if people exhibit the objectifying gaze toward women in situations when they are fully clothed (e.g., on the street, in the workplace) than in various states of undress (e.g., wearing a bikini on the beach; wearing no clothes during a sexual encounter). Relatedly, recent research in the area of person perception suggests that people initially attend to women’s faces, but also to their body parts (e.g., waist-to-hip ratio) during initial person perception for gender categorization, but this effect is tempered when perceivers already know the gender of the targets (Johnson, Lurye, & Tassinary, 2010, Johnson & Tassinary, 2005; see also Lippa, 1983).Like the work of Dixson and colleagues, this work suggests that gaze patterns may be modified depending on the focus of the perceiver. Our work complements these approaches by explicitly introducing an objectifying appearance-focus or a non-objectifying personality-focus.

Based on these considerations, we hypothesized that people would focus on women’s bodies and sexual body parts more and their faces less when they were appearance-focused (vs. personality-focused). To test this, male and female undergraduates viewed photographs of women and were instructed to evaluate their appearance or personality. During this task, their eye movements and fixations were monitored to determine (a) how long participants dwelled on each body part and (b) where they first fixated.

We also explored whether body shape contributed to the objectifying gaze as a secondary, more exploratory purpose of the work. When people specifically focus on women’s appearances (Fredrickson & Roberts, 1997), they may be more prone to approach women with bodies that fit cultural ideals of attractiveness than women with bodies that do not. Consistently, the same woman was approached more frequently by men in a bar when her breasts appeared larger than average (a “C” cup vs. a “B” cup or “A” cup via confederate wearing a padded bra, Gueguen, 2007 with a sample of French men) and thus, more attractive (Zelazniewicz & Pawlowski, 2011 with a sample of Polish students), suggesting that bust size is positively correlated with men’s approach-related sexual advances. Applied to the present work, the larger breasts of women with ideal body shapes may prompt another approach behavior specifically directed at the body parts that fit cultural ideals of attractiveness, namely gazing. We examined women with (a) hourglass shaped bodies with exaggerated sexualized body parts, having larger breasts and lower waist-to-hip ratios that fit cultural ideals of feminine beauty, or *high ideal* body shapes, (b) bodies with average sexualized body parts, having average breasts and average waist-to-hip ratios that somewhat fit cultural ideals of beauty, or *average* body shapes, and (c) bodies with attenuated sexualized body parts, having smaller breasts and larger waist-to-hip ratios that do not fit cultural ideals of beauty or *low ideal* body shapes. Importantly, each of our models was presented with each of the aforementioned physiques, and thus, all other aspects of the display were identical across conditions.

Indirect evidence from research on attention and female attractiveness supports the notion that the objectifying gaze may be enacted toward women with body shapes that differentially fit ideals of beauty. For example, Dixson et al. (2011) found that New Zealand men rated the bodies of nude women as most attractive when they had lower (vs. higher) waist-to-hip ratios in addition to demonstrating that visual attention was mainly directed at the breasts. Interestingly, however, attention shifted to the waists of those women with higher waist-to-hip ratios. Dixson et al. (2010) conducted an analogous study in which they varied both breast size and waist-to-hip ratio and found that New Zealand men gazed at the breasts and waists earlier than the faces, regardless of body shape. Our focus on body shape extends and elaborates this work by examining visual attention to fully clothed (rather than nude) women for both male and female participants (rather than male only) and compares attention to women with different body shapes under objectifying (vs. non-objectifying) conditions.

**Overview and Hypotheses of the Present Work**

Based on these considerations, we asked two broad questions in the present work. We examined whether people focused on women’s sexual body parts more and their faces less when they were appearance-focused (vs. personality-focused). We also considered whether appearance-focused people were particularly likely to gaze at the sexual body parts more and faces less of women with bodies who fit cultural ideals of beauty (high ideal vs. average and low ideal body shapes) relative to personality-focused people. To consider these questions, male and female undergraduates viewed photographs of women with body shapes that were high, average, or low in fit with cultural ideals of beauty when they were instructed to evaluate their appearance or personality from extremely negative to extremely positive. During this task, their eye movements and fixations were monitored to determine how long participants dwelled on each body part and where they first fixated. For present purposes, our specific areas of interest were the face, the chest, and the waist. We focused on chests because breasts are regarded as the most objectified sexual body part of women (e.g., Young, 2003; Bartky, 1990); they are used by advertisers to sell an array of products (Kilbourne & Pipher, 1999; Young, 2003) and women report that others often stare at their breasts when they objectify them during interpersonal interactions (Kozee et al., 2007). With regard to waists, this body part has received less empirical attention than breasts from an objectification perspective, but cultural ideals suggest that narrow waists are attractive (Yu & Shepard, 1998) and women’s waists are often attended to as indicators of gender categorization (Johnson & Tassinary, 2005; Johnson et al., 2010) and reproductive fitness (Yu & Shepard, 1998).

**Hypothesis 1**

Regarding the objectifying gaze, we hypothesized that people would dwell for longer durations on women’s sexual body parts and shorter durations on women’s faces when they were appearance-focused (vs. personality-focused, Hypothesis 1a). We also hypothesized that this effect would be further moderated by ideal body shape with appearance-focused people dwelling for longer durations on the sexual body parts and shorter durations on the faces of women with bodies who fit cultural ideals of beauty (high ideal vs. average and low ideal body shapes, Hypothesis 1b) compared to personality-focused people.

**Hypothesis 2**

We made a complementary set of predictions regarding another attentional indicator of the objectifying gaze – first fixation time. We hypothesized that people would first fixate faster on women’s sexual body parts and first fixate slower on women’s faces when they were appearance-focused (vs. personality-focused, Hypothesis 2a). We also hypothesized that this effect would be further moderated by ideal body shape with appearance-focused people first fixating faster on the sexual body parts and first fixating slower on the faces of women with bodies that fit cultural ideals of beauty (high ideal vs. average and low ideal body shapes, Hypothesis 2b) compared to personality-focused people.

**Hypothesis 3**

Finally, we examined the positivity ratings in the appearance-focus and personality-focus conditions for women with high, average, and low ideal body shapes. We hypothesized that women with high ideal body shapes would be regarded as most positive, followed by women with average ideal body shapes, followed by women with low ideal body shapes (Hypothesis 3). We also explored whether focus moderated these effects. A positivity bias for women with high ideal body shapes clearly should emerge under appearance focus; compared to women with average and low ideal body shapes, women with high ideal body shapes are regarded as more attractive and thereby their appearance should be evaluated more positively. However, we also reasoned that this effect may emerge under personality focus as well. There is a personality bias in favor of attractive people, with attractive people regarded as more successful, more sociable, and happier than unattractive people (i.e., the “what is beautiful is good” effect, Dion, Berscheid, & Walster, 1972; Eagly, Ashmore, Makhijani, & Longo, 1991).

Additionally, despite the fact that most scholars assume that the objectifying gaze is directed at women from men (i.e., the *male* gaze, Bartky, 1990; Fredrickson & Roberts, 1997), most research that has directly compared male and female participants shows that both genders engage in objectifying behavior towards women (Bernard, Gervais, Allen, Campomizzi, & Klein, 2012 with a sample of Belgian students; Heflick & Goldenberg, 2009; Heflick et al., 2011; Gervais, Vescio, & Allen, 2012a; Gervais, Vescio, Förster, Maass, & Suitner, 2012b; Loughnan, Haslam, Murnane, Vaes, Reynolds, & Suitner, 2010; Vaes, Paladino, & Puvia, 2011 with sample with Italian students). This is also consistent with findings that women who self-objectify, internalizing the male objectifying gaze, not only see their own bodies, but also the bodies of other women through an objectifying lens (Johnson & Gurung, 2011; Lindner, Tantleff-Dunn, & Jentsch, 2012; Puvia & Vaes, 2012 for sample with Italian students; see also Zurbriggen, Ramsey, & Jaworski, 2011). Thus, we explored whether the predicted effects held for both male and female perceivers. That is, we expected similar effects to emerge for men and women, but we included participant gender in all of the analyses to rule out the possibility that the effects were more pronounced for men than women. We tested all hypotheses with mixed model Analyses of Variance (ANOVAs).

**Method**

**Participants and Design**

Sixty-five (29 women, 36 men) students from a Midwestern University in the U.S. (see Table 1 for Demographics) participated for course credit and/or monetary compensation. We utilized a 3 (Body part: face, chest, and waist) X 2 (Focus: appearance or personality) X 3 (Ideal body shape: high, average, and low) X 2 (Participant gender: men or women) mixed model design. Focus and participant gender were the between participants factors.

Procedure

Participants were recruited via an online advertisement in a Psychology Department Participant Pool and invited to the lab to participate in a study of perception. After providing informed consent, participants were seated at a computer and viewed photographs of women in random order for 3000 milliseconds (ms) following a 500 ms fixation cross presented in the center of the screen while wearing an eye tracker. Specifically, participants viewed images of 10 college-aged women who were photographed in white tank tops and blue jeans in neutral positions with neutral facial expressions (Gervais et al., 2012a; 2012b).

We modified the women’s bodies using Photoshop to represent high (larger breasts and lower waist-to-hip ratios), average (average breasts and average waist-to-hip ratios), or low (smaller breasts and higher waist-to-hip ratios) ideal body shapes. The original photographs represented the full spectrum of women with high, average, and low ideal body shapes. Thus, the bodies of women with naturally low ideal body shapes were modified to represent average and high ideal body shapes, the bodies of women with naturally average body shapes were modified to represent low and high ideal body shapes, and the bodies of women with naturally high ideal body shapes were modified to represent low and average ideal body shapes. Thus, the same face was presented with a high, average, or low ideal body shape for a total of 30 different photographs (see Appendix); participants saw each woman with all three body shapes. To ensure that the bodies of women with low, average, or high ideal body shapes did not appear unusual (which could drive attention if the Photoshop modifications were deemed unrealistic), a separate sample of nine (seven women, two men) undergraduates rated the degree to which “the person in the photograph has an unusual body shape” on 7-point scales (1 = *not at all,* 7 = *extremely*). Within participants ANOVAs confirmed that the bodies of women with high ideal (*M =* 2.20, *SE* = .43), average ideal (*M =* 1.73, *SE* = .29), and low ideal (*M =* 1.90, *SE* = .36) shapes were perceived as low on the overall scale (well below the mid-point) and as equally unusual, *p* > .12 Thus, the gaze was driven by ideal and not unusual body shapes. As well, to confirm the effectiveness of the body shape manipulation, we pilot tested the photographs with a separate sample of nine (seven women, two men) undergraduates. Participants rated the degree to which each photograph *“fit cultural ideals of feminine attractiveness”* and was “*hourglass-shaped,”* on 9-point scales (1 = *not at all,* 9 = *extremely*). Within participants ANOVAs confirmed that, although created from photographs with bodies and faces that were initially equally attractive (see Gervais et al., 2012a for attractiveness pilot testing of these stimuli), after the Photoshop modification, the bodies of women with high ideal shapes (*M* = 6.00, *SE* = .51) were regarded as fitting cultural ideals of feminine attractiveness more than women with average (*M* = 5.11, *SE* = .39) and low ideal body shapes (*M* = 4.13, *SE* = .39), *F*(2, 16) = 13.30, *p* < .0001, ηp2 = .62; all body shapes were significantly different from each other on feminine ideals of attractiveness, *p*s < .037 - .005. Also, women with high ideal body shapes (*M* = 7.02, *SE* = .35) were regarded as more hourglass-shaped than women with average (*M* = 5.07, *SE* = .34) and low ideal body shapes (*M* = 2.78, *SE* = .35), *F*(2, 16) = 83.83, *p* < .0001, ηp2 = .91; all body shapes were significantly different from each other on hourglass ratings, *p*s < .0001.

Participants viewed the photographs after they were randomly assigned to a focus condition. Participants in the appearance-focus condition (25 men, 14 women) were asked to focus on the appearance of the women and to indicate the positivity of the target’s appearance on a 7-point scale (1 = *extremely negative,* 7 = *extremely positive*). The personality-focus condition (11 men, 15 women) was exactly the same as the appearance-focus condition, except participants focused on and indicated the positivity of the woman’s personality (see Gray, Knobe, Sheskin, Bloom, & Barrett, 2011, for similar procedure with evaluative ratings). Finally, participants indicated their age, race/ethnicity, and gender and were thoroughly debriefed.

Measures

Gaze was measured utilizing an SR Research Ltd. EyeLink II system (Mississauga, Ontario, Canada), with high spatial resolution and a sampling rate of 500 Hz. The dominant eye was monitored for all participants. Thresholds for detecting the onset of a saccadic movement were acceleration of 8000º/s2, velocity of 30º/s, and distance of 0.5º of visual angle. Movement offset was detected when velocity fell below 30º/s and remained at that level for 10 consecutive samples. Stimulus displays were presented on two monitors, one for the participant and the other for the experimenter (real-time feedback to the experimenter allowed for recalibration when necessary). The average error in the computation of gaze position was less than 0.5º. A nine-point calibration procedure was performed at the beginning of the experiment, followed by a nine-point calibration accuracy test. Calibration was repeated if any point was in error by more than 11 or if the average error for all points was greater than 0.5º.

Two measures were used as indicators of the gaze. First, dwell time was calculated by summing the total duration (in ms) participants spent fixating on faces, chests, and waists over the duration of each trial for women with high, average, or low ideal body shapes (when we examined run count, which was calculated by summing the number of times participants returned the gaze to the faces, chests, or waists, we found a similar pattern of effects as dwell time). Second, first fixation was calculated by determining, relative to the onset of the trial, how long it took participants to initially fixate on faces and waists with lower values representing a faster orientation of attention. We did not include chests in this analysis because the fixation cross that appeared before the onset of each picture was in the same location as the chest, making first fixation to chests difficult to interpret. Whereas higher dwell times represent an increased bias towards a specific area of the body, lower first fixation times represent an increased bias, as this is a measure of how quickly an area was fixated.

Given that high, average, and low ideal body shape women were all created by manipulating a single pose in Photoshop (i.e., the location of the face, chest, and waist remained constant, but the proportions could change), we derived a single interest area template for each model which consisted of a rectangular box outlined around the face (from the chin to the forehead and between the ears), the chest (from slightly below the shoulders to slightly below the breasts and between the armpits), and the waist (from slightly below the breasts to slightly above the pelvis and between the hips). Templates were based on the high ideal model to ensure that each body part was fully represented by the interest area template and to ensure that the comparison across models was based on identically sized areas. There was slight variation across models due to differences in the size of the head, face, and body but each interest area was approximately the same size across models and exactly the same size within models.

Results

**Hypothesis 1: Dwell Time**

We predicted that people would dwell for longer durations on women’s sexual body parts and shorter durations on women’s faces when they were appearance-focused (vs. personality-focused, Hypothesis 1a). We also predicted that this effect would be further moderated by ideal body shape with appearance-focused people dwelling for longer durations on the sexual body parts and shorter durations on the faces of women with bodies who fit cultural ideals of beauty (high ideal vs. average and low ideal body shapes, Hypothesis 1b) compared to personality-focused people. To test these hypotheses, dwell time was submitted to a 3 (Body part: face, chest, and waist) X 2 (Focus: appearance or personality) X 3 (Ideal body shape: high, average, and low) X 2 (Participant gender: men or women) mixed model ANOVA. Focus and participant gender were the between participant factors while body part and ideal body shape were within participant factors. Mauchly’s test indicated that the assumption of sphericity had been violated for body part, *Χ2*(2) = 110.51, *p* < .0001, and therefore degrees of freedom for the effects including body part were corrected using Greenhouse-Geisser estimates of sphericity (ε = .543).

A main effect of body part, *F*(1.09, 66.25) = 215.68, *p* < .0001, ηp2 = .78, revealed that women’s faces (*M =* 1486.61, *SE* = 64.17) were gazed at for longer durations than their chests (*M* = 381.68, *SE* = 23.33) and their waists (*M* = 266.62, *SE* = 16.04) and women’s chests were gazed at for longer durations than their waists, *p*s < .0001. A main effect of focus, *F*(1, 61) = 8.71, *p* < .005, ηp2 = .13, revealed that people who were appearance-focused (*M =* 666.21, *SE* = 19.82) gazed at the women for shorter durations than people who were personality-focused (*M =* 757.06, *SE* = 23.56). A main effect of participant gender, *F*(1, 61) = 4.44, *p* < .040, ηp2 = .07, also revealed that male participants (*M* = 744.07, *SE =* 21.48) gazed at the women for longer durations than female participants (*M =* 679.21, *SE* = 22.06). Because we focused on the faces, chests, and waists of women, the focus and participant gender main effects emerged when people were focused on other body parts or on the computer screen, but not on the women’s bodies. Participant gender did not interact with body part, ideal body shape, or focus, *p*s > .21. However, the means are reported for male and female participants separately for descriptive purposes.

The hypothesized 2-way body part X focus interaction, *F*(1.09, 66.25) = 16.46, *p* < .0001, ηp2 = .21, qualified these main effects. To test Hypothesis 1a, we compared dwell times for appearance (vs. personality) focus for each body part. As Table 2 shows, consistent with Hypothesis 1a, participants gazed at women’s faces for shorter durations in the appearance-focus condition than the personality-focus condition. Participants also gazed at women’s chests and waists for longer durations in the appearance-focus condition than the personality-focus condition.

A body part X ideal body shape interaction, *F*(2.58, 157.51) = 8.39, *p* < .0001, ηp2 = .12, also qualified the body part main effect. To interpret the interaction, we compared dwell time for women with high, average, and low ideal body shapes for each body part. As Table 3 shows, participants gazed at the faces of women with high ideal shapes for shorter durations than average and low ideal shapes. Participants also gazed at the chests of women with high ideal shapes for longer durations than women with average and low ideal shapes. Finally, participants gazed at the waists of women with high ideal shapes for longer durations than women with average shapes, but dwell time for the waists of women with high ideal shapes did not significantly differ from the waists of women with low ideal shapes.

Importantly, the hypothesized, 3-way body part X ideal body shape X focus interaction, *F*(2.58, 157.51) = 2.77, *p* = .052, ηp2 = .04, further qualified the main effects and low order interactions. To test Hypothesis 1b, we examined women with high, average, or low ideal body shapes within each body part separately for the appearance and personality focus conditions. As the upper half of Table 4 shows, the 2-way body part X ideal body shape interaction was driven by participants in the appearance-focus condition. Specifically, these participants gazed at the faces of women with high ideal bodies for shorter durations than women with average and low ideal bodies, which is consistent with Hypothesis 1b. Also in the appearance-focus condition, participants gazed at the chests of women with high ideal bodies for longer durations than women with average and low ideal bodies, which is also consistent with Hypothesis 1b. Finally, participants gazed at the waists of women with high ideal bodies for longer durations than women with average and low ideal bodies in this condition, but these differences did not reach conventional levels of significance, which is somewhat inconsistent with Hypothesis 1b. Also consistent with Hypothesis 1b, in the personality-focus condition, dwell time for women’s faces and women’s waists did not depend on ideal body shape; however, participants still gazed at the chests of women with high ideal bodies for longer durations than the chests of women with low ideal bodies, but dwell time for women with high and low ideal bodies did not differ from women with average bodies. The 4-way body part X ideal body shape X focus X participant gender interaction was not significant, *p >*.47,but the pattern of significant results remained the same even when the higher order interaction was not included in the model.

**Hypothesis 2: First Fixation Time**

We predicted that people would first fixate faster on women’s sexual body parts and first fixate slower on women’s faces when they were appearance-focused (vs. personality-focused, Hypothesis 2a). We also predicted that this effect would be further moderated by ideal body shape with appearance-focused people first fixating faster on the sexual body parts and first fixating slower on the faces of women with bodies that fit cultural ideals of beauty (high ideal vs. average and low ideal body shapes, Hypothesis 2b) compared to personality-focused people. To test these hypotheses, first fixation time was tsubmitted to a 2 (Body part: face and waist) X 2 (Focus: appearance or personality) X 3 (Ideal body shape: high, average, and low) X 2 (Participant gender: men or women) mixed model ANOVA. Unlike dwell time, Mauchly’s test indicated that the assumption of sphericity had not been violated for body part or body shape, *p*s = .54 - .70, and thus, no corrections for sphericity (ε’s = .99 - 98) were required.

A main effect of ideal body shape, *F*(2, 122) = 3.40, *p* < .038, ηp2 = .05, revealed that participants first gazed at women with low ideal bodies (*M* = 348.99, *SE =* 22.17), followed by women with high ideal bodies (*M* = 376.64, *SE =* 22.45), followed by women with average bodies (*M* = 407.51, *SE =* 25.32). However, the only significant difference was between women with low ideal bodies and average bodies, *p* < .016. First fixation time for women with high ideal bodies did not significantly differ from average bodies, *p* = .15 or from low ideal bodies*, p =* .23. A main effect of body part, *F*(1, 61) = 4.37, *p* = .041, ηp2 = .07, also revealed that participants first gazed at the faces (*M =* 344.40, *SE* = 22.04) significantly faster than the waists (*M* = 411.03, *SE* = 27.89). The main effect of body part was also qualified by a body part X participant gender interaction, *F*(1, 61) = 5.85, *p* < .02, ηp2 = .09 with women (*M* = 331.73, *SE* = 31.58) and men (*M* = 357.06, *SE* = 30.75) gazing equally fast at faces, *p >* .57, but men gazing faster at waists (*M* = 346.58, *SE* = 38.91) than women (*M* = 475.48, *SE* = 31.73), *p* < .03, indicating an objectifying bias.

Inconsistent with Hypothesis 2a, the body part X focus interaction was not significant, *p =* 33. Importantly, however, the hypothesized body part X focus X ideal body shape interaction, *F*(2, 122) = 3.21, *p* < .045, ηp2 = .05, also emerged and qualified the lower effects, indicating that, consistent with Hypothesis 2b, appearance-focus and body shape moderated first fixation time. As Table 5 shows, when appearance-focused, people first fixated faster on faces of women with low ideal than women with high ideal and average ideal bodies, which is consistent with Hypothesis 2b. Importantly, personality-focus eliminated this effect, with people focusing equally on the faces of women with high ideal, average, and low ideal bodies. Contrary to Hypothesis 2b, people fixated equally fast on women’s waist in the appearance-focused condition, but faster on the waists of women with low ideal bodies than high ideal and average bodies in the personality-focused condition. The 4-way body part X ideal body shape X focus X participant gender interaction was not significant, *p* > .17, but the pattern of results remained the same even when participant gender and the higher order interaction was not included in the model.

**Hypothesis 3: Positivity Evaluations for Appearance-Focus and Personality-Focus**

Finally, we predicted that women with high ideal body shapes would be regarded as most positive, followed by women with average ideal body shapes, followed by women with low ideal body shapes (Hypothesis 3). To test this hypothesis, mean positivity ratings were submitted to a 2 (Focus: appearance or personality) X 3 (Ideal body shape: high, average, and low) X 2 (Participant gender: men or women) mixed model ANOVA. Mauchly’s test indicated that the assumption of sphericity had been violated for body shape, *Χ2*(2) = 31.40, *p* < .0001, and thus degrees of freedom for body shape effects were corrected using Greenhouse-Geisser estimates of sphericity (ε = .711).

Consistent with Hypothesis 3, a main effect of ideal body shape, *F*(1.42, 86.68) = 12.09, *p* < .0001, ηp2 = .17, revealed that people evaluated women with high ideal bodies marginally more positively (*M =* 4.20, *SE* = .09) than women with average bodies (*M =* 4.15, *SE* = .09), *p =* .083, and more positively than women with low ideal bodies (*M* = 3.98, *SE* = .09), *p* < .0001. Also in line with Hypothesis 3, people regarded women with average ideal bodies more positively than women with low ideal bodies, *p* < .002. An interaction between ideal body shape and participant gender also qualified the ideal body shape main effect, *F*(1.42, 86.68) = 6.55, *p* < .003, ηp2 = .10, further revealing that the main effect of body shape was primarily driven by male participants. Positivity ratings for female participants did not vary as a function of ideal body shape, with women with high ideal (*M =* 4.17, *SE* = .13), average ideal (*M =* 4.20, *SE* = .13), and low ideal (*M =* 4.13, *SE* = .13), bodies evaluated equally positively *p*s = .22 - .56. However, men evaluated women with high ideal bodies more positively (*M =* 4.23, *SE* = .12) than women with average bodies (*M =* 4.09, *SE* = .13), *p =* .003, and more positively than women with low ideal bodies (*M* = 3.85, *SE* = .13), *p* < .0001. Men also regarded women with average bodies more positively than low ideal bodies, *p* < .0001. No effects of focus (the main effect or the interaction with body shape) emerged, *p*s = .46-.75, indicating that body shape contributed equally to positivity ratings, regardless of whether men were focused on the women’s appearances or personalities. Thus, men were discriminating between women with high, average, and low ideal body shapes in both the appearance and personality conditions, indicating that they attended to the bodies of women, regardless of focus, consistent with the “what is beautiful is good effect” (Dion et al., 1972). The 3-way ideal body shape X focus X participant gender interaction was not significant, *p* > .91, but the pattern of results remained the same even when the interaction was not included in analyses.

**Discussion**

Despite the importance of the objectifying gaze to objectification theory (Fredrickson & Roberts, 1997) and the adverse consequences of the gaze on women recipients, no published studies to date have empirically documented the nature of the objectifying gaze—less focus on faces and more focus on sexual body parts—in perceivers. Regarding dwell time, participants gazed at women’s faces for shorter durations and chests and waists for longer durations when they were asked to objectify the women by evaluating their appearance (vs. personality, consistent with Hypothesis 1a) and this effect was exacerbated for women with bodies that fit cultural ideals of beauty (i.e., hourglass shaped women, consistent with Hypothesis 1b).

Although still objectifying (indicating more focus on body parts and less faces), a somewhat different pattern of results emerged on first fixation time. Unlike dwell time, first fixation time was qualified by participant gender with male participants exhibiting more of an objectifying bias than women. Men first fixated on waists faster than women. Inconsistent with Hypothesis 2a, a body part X focus interaction did not emerge. However, consistent with Hypothesis 2b, a body part X focus X ideal body shape interaction revealed that participants first fixated on faces and waists of high ideal and average bodies equally under appearance-focus. Under personality-focus on the other hand, this objectifying bias was eliminated with participants first fixating on faces faster than waists. Somewhat inconsistent with Hypothesis 2b, an attentional bias emerged for women with low ideal bodies in the personality-focused condition with people first fixating equally on faces and waists, but this bias did not emerge in the appearance-focused condition, suggesting that attention may be directed to the waists of women with low ideal body shapes, but this is not driven by objectification motives.

An integration of the pattern of results for dwell time and first fixation time indicates that, consistent with hypotheses, people exhibited the objectifying gaze more when they are appearance-focused and/or when viewing women with bodies that fit cultural ideals of beauty. Interestingly, the objectifying gaze was generally exhibited toward women with bodies that fit cultural ideals of beauty, but it was also sometimes exhibited toward women with bodies that did not fit these cultural ideals (e.g., toward the waists of women with low ideal bodies). Thus, when situational or perceiver features contribute to an appearance-focus, all women may experience the objectifying gaze, regardless of attractiveness (Heflick et al., 2011). This is consistent with Fredrickson and Robert’s (1997) proposition that having a reproductively mature female body creates a shared cultural experience in which the bodies of all women (regardless of attractiveness) are persistently looked at, evaluated, and potentially objectified. Yet, the body shape findings from the present work also suggest that women with bodies that fit cultural ideals of beauty are most at risk for the objectifying gaze, followed by women who do not fit cultural ideals of beauty. Thus, women with these two body shapes may attract more appearance-focus, thereby causing greater objectification of these women compared to women with other body shapes. This finding also complements recent research focusing on another body attribute – body mass (Holland & Haslam, 2013). Complementing our work, this study revealed that attention (examined via a dot probe paradigm) was directed to the bodies of thin women to a greater degree than overweight women. Integrated with the present study, future research should examine whether the objectifying gaze is directed toward thin and overweight women to a greater degree than average weight women. Future research should also examine whether women strategically present their bodies in ways that appear to fit ideal body shapes (e.g., by wearing such clothing as push-up bras to emphasize cleavage or spanx to slim waists) or not. If they do this, they may find themselves in a double-bind; to evade the objectifying gaze, women may need to avoid being evaluated as too attractive, but at the same time, avoid unattractive evaluations. For example, during a job interview in which women may seek to avoid the objectifying gaze, they may be most successful when they present themselves as average in attractiveness. This is an area that begs for more research.

Consistent with Hypothesis 3, women with high ideal bodies were generally regarded more positively than women with average or low ideal bodies. This effect was moderated by participant gender with men, but not women differentiating between women with different body shapes. Interestingly this effect emerged in both the appearance-focus condition (where it would be expected), but also in the personality-focus condition, suggesting that even personality-focused men were still differentiating women in terms of the attractiveness of their bodies, consistent with the “what is beautiful is good” hypothesis (Dion, et al., 1972; Eagly, et al., 1991). Generally speaking, more attractive women may be regarded more positively than less attractive women. Yet, previous research suggests that this does not translate to all perceptions (e.g., attractive women are regarded as less competent, Heilman & Stopeck, 1985) and the present work suggests that attractiveness may be associated with an additional liability. Although evaluating them positively, perceivers are still focused less on individuating and personalizing features, such as faces, and more on the bodies of attractive women.

**Implications**

The model of objectification (Fredrickson & Roberts, 1997), including antecedents, mechanisms, as well as short-term and long-term consequences of objectification for women recipients, has received substantial empirical support (Moradi & Huang, 2008). Yet, it appears that theorists and researchers have overlooked and somewhat neglected a critical aspect of objectification, namely the causes of objectifying behaviors—including the objectifying gaze—in perceivers in the first place (see Gervais, Bernard, Klein, & Allen, 2013). This study contributes to a growing literature focusing on the predictors and consequences of objectified perceptions and behaviors toward women (e.g., Cikara, Eberhardt, & Fiske, 2011; Heflick & Goldenberg, 2009; Gervais et al., 2012a; Loughnan et al., 2010; Vaes et al., 2011).

Additionally, to our knowledge, our study is one of the first to utilize an eye tracker to measure the objectifying gaze. This represents an important methodological advance to the objectification literature. Previous research has focused primarily on women’s self-reported experiences with the objectifying gaze (e.g., Kozee et al., 2007). Modifying these existing measures to assess the objectifying gaze in perceivers (e.g., self-reports of how frequently they exhibit the objectifying gaze) is a useful, but limited approach because self-reports often fail to map onto actual behaviors (Baumeister, Vohs, & Funder, 2007). People may exhibit the objectifying gaze without conscious awareness and even when they purposefully display it, they may fail to report it due to social desirability concerns. Eye tracking technology is also more precise than monitoring the gaze through other means. For example, dot probes only assess the gaze at specific parts during discrete durations (e.g., is someone gazing at a body part at 200 ms) whereas eye trackers allow for continuous monitoring of gaze behaviors across many body parts, providing insight into both what is being fixated in addition to what is not being fixated.

This research contributes to a growing literature indicating that men, but also women see women as objects (e.g., Bernard et al., 2012; Gervais et al., 2012a; Vaes et al., 2011; Heflick et al., 2011). At first blush, the finding that women sometimes exhibit the objectifying gaze may seem at odds with objectification theory (Fredrickson & Roberts, 1997), given that the objectifying gaze was originally coined the “male” gaze. Yet, this finding is consistent with the idea that women may internalize the male gaze and self-objectify, which in turn leads them to exhibit the objectifying gaze toward other women (Puvia & Vaes, 2012).

Objectification theory posits that the objectifying gaze stemming from sexual objectification mostly occurs in media and social interactions in Western cultures (Fredrickson & Roberts, 1997). Thus, the present work utilized a Western sample in the U.S. It remains unclear, however, whether the same effects would emerge in non-Western cultures. Recent research suggests that sexual objectification and its consequences are somewhat limited to Western cultures (Loughnan, Fernandez, Vaes, Anjum, Aziz, Harada, Holland, Puvia, Singh, & Tsuchiya, 2013), and thus it is possible that the objectifying gaze may not emerge in non-Western cultures. Future cross-cultural research is needed to further explore this possibility.

Because the objectifying gaze emerged at relatively short durations immediately upon viewing the women, one theoretical lens that might inform the perceiver side of objectification theory is a dual model of impression formation for person perception (Bodenhausen & Macrae, 1998; Brewer, 1988; Fiske & Neuberg, 1990). It is possible that the objectifying gaze triggers a category-based mode of person perception, in which women are not regarded as individuals but are instead regarded as a collection of their sexual body parts for the use of the perceiver (see Gervais et al., 2013). Through this person perception lens, the objectifying gaze may be a mechanism that explains relations between the precursors and other objectifying consequences for women. For example, appearance-focus has been linked to objectified social perceptions of women, including dehumanization (e.g., less competence, less warmth, and less morality, Heflick & Goldenberg, 2009; Heflick et al., 2011). When appearance-focus prompts more focus on the objectified sexual body parts of women and less focus on their individuating, uniquely human faces, dehumanizing attributes may be activated (or humanizing attributes inhibited, Latrofa & Vaes, 2012, see also Loughnan et al., 2010). As well, the objectifying gaze may not only be associated with dehumanized social perceptions, but it may also be associated with other behavioral manifestations of objectification. For example, Bartky (1990) notes that catcalls are indicators to women that they have experienced the objectifying gaze. In order to do this, presumably one must subject women to the objectifying gaze in order to evaluate whether their bodies fit cultural ideals of beauty or not.

**Limitations and Directions for Future Research**

Despite the intriguing pattern of results, this study has some limitations. First, because the high ideal (vs. average and low ideal) body shapes were represented with both larger breasts and smaller waist-to-hip ratios (similar to Dixson et al., 2010), it remains unclear whether breast size, waist-to-hip ratio, or both features are equally contributing to these effects. To further explore this issue, future research could orthogonally vary these features (e.g., larger breasts and smaller waist-to-hip ratios vs. smaller breasts and smaller waist-to-hip ratios) to determine the unique impact of breast size and waist-to-hip ratio on the objectifying gaze.

Additionally, we examined the objectifying gaze exhibited toward photographs of women rather than real life women. One might argue that these women are in some ways objects and thus people may be more likely to exhibit the objectifying gaze toward them; they are merely pictures on a screen and people may act very differently in interactions with real women. To partially address this issue, we presented photographs of actual women (see Gervais et al., 2012a; 2012b), rather than models from advertisements as most previous objectification research has done (e.g., Bernard et al., 2012; Vaes et al., 2011). As well, we aimed to systematically manipulate only the ideal body shape of the women, and thus, we employed a within participants design. This allowed us to control for idiosyncratic features of the model (e.g., facial attractiveness) that could impact the objectifying gaze. However, because of the nature of our design, it is possible that people focused on the body parts that were changing within models or that were unusual due to digital modifications and this contributed to our pattern of effects. Yet, we do not think that this can explain our results for empirical reasons (the gaze pattern data does not show that people focused on the body parts more than faces) and for logical reasons (this could explain body part or body shape main effects, but it could not explain why appearance-focus further moderated this effect).To completely address this issue, future research may examine the objectifying gaze toward live women using a portable eye tracker and employing a between subjects design utilizing models with no digital modifications.

Another limitation of the work is that we examined only the perceptions of college men and women who were mostly young and White. Future research could include older participants, participants with more ethnic and racial diversity, and participants with varying relationship status. For example, young people may be particularly likely to focus on the sexual body parts of others because they are considering potential relationship partners. Yet, older people in committed relationships could also focus on the sexual body parts of others because they are novel compared to the sexual body parts of their significant others. In a related vein, all of our targets were young (other college-aged students), thin, and White and thus, people may have been particularly likely to exhibit the objectifying gaze because in addition to body shape, youth, thinness, and Whiteness are also related to cultural prescriptions of beauty. Future research could further explore these factors to consider which attractiveness ideals contribute to the gaze.

We focused on the nature of the objectifying gaze toward women because objectification theory suggests that women are the primary targets of the objectifying gaze (Bartky, 1990; Fredrickson & Roberts, 1997) and most of the empirical research on this issue suggests that women are objectified more frequently and with greater consequences than men (e.g., Bernard et al., 2012; Gervais, et al., 2012b; Heflick et al., 2011; Vaes et al., 2011). Yet, some research is consistent with the notion that men may also experience the objectifying gaze. Men report experiencing the objectifying gaze during interpersonal interactions with others (Davidson, Gervais, Canivez, & Cole, 2013; Engeln-Maddox, Miller, & Doyle, 2011) and perceivers sometimes objectify men. For example, men with ideal body shapes are regarded as fungible similar to women with ideal body shapes (Gervais et al., 2012a); that is, in surprise recognition tasks, people mismatched the faces of men with ideal body shapes with other men with ideal body shapes (vs. men with average ideal body shapes), indicating that they were attending to these men’s bodies, rendering them as interchangeable objects, regardless of their faces. Thus, it is possible that people may sometimes exhibit the objectifying gaze toward men when they are appearance-focused or when men’s bodies fit cultural ideals of masculine attractiveness (e.g., have a muscular physique). If this is the case, future research should also examine whether the gaze is associated with the same negative social perceptions for men (e.g., Cikara et al., 2011; Heflick et al., 2011; Vaes et al., 2011). Although there is increasing attention to the bodies of men, cultural ideals of masculine attractiveness prescribe muscular bodies which are associated with more physical power, whereas cultural ideals of attractiveness for women prescribe thin bodies that occupy less space which is associated with less power (Gervais et al., 2012a). Given that cultural prescriptions indicate that men should be muscular, future research should also examine whether people gaze at large arms, broad chests, and narrow waists (e.g., six pack abs) of men. However, making between-gender comparisons using eye-tracking may represent a methodological issue, given natural size differences between men and women and because some parts may be objectified in men (e.g., bicep size, Pope, Katz, & Hudson, 1993), but not women.

**Concluding Remarks**

According to objectification theory, women frequently experience the objectifying gaze from others with several adverse consequences (Fredrickson & Roberts, 1997; Moradi & Huang, 2008). As we continue to understand how women respond to the objectifying gaze (Moradi & Huang, 2008; Gervais et al., 2011), the present research contributes to further understanding of when and why perceivers exhibit the objectifying gaze toward women in the first place.

**References**

Archer, D., Iritani, B., Kimes, D. D., & Barrios, M. (1983). Face-ism: Five studies of sex differences in facial prominence. *Journal of Personality and Social Psychology*, *45*, 725-735. doi:10.1037/0022-3514.45.4.725.

Bartky, S.L. (1990). *Femininity and domination: Studies in the phenomenology of oppression.*

New-York: Routledge.

Baumeister, R. F., Vohs, K. D., & Funder, D. C. (2007). Psychology as the science of self-

reports and finger movements: What happened to actual behavior? *Psychological Science, 2*, 396-403. doi: 10.1111/j.1745-6916.2007.00051.x

Bernard, P., Gervais, S. J., Allen, J., Campomizzi, S. & Klein, O. (2012). Integrating

sexual objectification with object versus person recognition: The sexualized body-inversion hypothesis. *Psychological Science, 23,* 469-471. doi: 10.1177/0956797611434748

Bodenhausen, G. V., & Macrae, C. (1998). Stereotype activation and inhibition. In R. R. Wyer, R. R. Wyer (Eds.), *Stereotype activation and inhibition* (pp. 1-52). Mahwah, NJ US: Lawrence Erlbaum Associates Publishers.

Brewer, M. B. (1988). A dual process model of impression formation. In T. K. Srull, R. R. Wyer, (Eds.), *A dual process model of impression formation* (pp. 1-36). Hillsdale, NJ England: Lawrence Erlbaum Associates, Inc.

Calogero, R. M. (2004). A test of objectification theory: The effect of the male gaze on appearance concerns in college women. *Psychology of Women Quarterly*, *28*, 16-21. doi:10.1111/j.1471-6402.2004.00118

Cikara, M., Eberhardt, J. L., & Fiske, S. T. (2011). From agents to objects: Sexist attitudes and neural responses to sexualized targets. *Journal of Cognitive Neuroscience*, *23*, 540-551. doi:10.1162/jocn.2010.21497

Cowan, N. (2005). *Working memory capacity*. New York, NY US: Psychology Press.

Davidson, M. M, Gervais, S. J., Canivez, G. L., & Cole, B. P. (2013). [A psychometric examination of the Interpersonal Sexual Objectification Scale among college men.](http://ux1.eiu.edu/~glcanivez/Adobe%20pdf/Publications-Papers/Davidson%20et%20al.%20(2013)%20ISOS%20Men.pdf) *Journal of Counseling Psychology, 60,* 239-250. doi: 10.1037/a0032075

Dion, K., Berscheid, E., & Walster, E. (1972). What is beautiful is good. *Journal of Personality and Social Psychology*, *24*, 285-290. doi:10.1037/h0033731

Dixson, B. J., Grimshaw, G. M., Linklater, W. L., & Dixson, A. F. (2010). Watching the hourglass: Eye tracking reveals men’s appreciation of the female form. *Human Nature, 21,* 355-370. doi:10.1007/s12110-010-9100-6

Dixson, B. J., Grimshaw, G. M., Linklater, W. L., & Dixson, A. F (2011). Eye tracking of men’s preferences for waist-to-hip ratio and breast size of women. *Archives of Sexual Behavior, 40,* 43-50. doi: 10.1007/s10508-009-9523-5.

Eagly, A. H., Ashmore, R. D., Makhijani, M. G., & Longo, L. C. (1991). What is beautiful is good, but…: A meta-analytic review of research on the physical attractiveness stereotype. *Psychological Bulletin*, *110*, 109-128. doi:10.1037/0033-2909.110.1.109

Ekman, P. (1993). Facial expression and emotion. *American Psychologist*, *48*, 384-392. doi:10.1037/0003-066X.48.4.384

Engeln-Maddox, R., Miller, S. A., & Doyle, D. M. (2011). Tests of objectification theory in gay

and lesbian samples: Mixed evidence for proposed pathways. *Sex Roles, 65*, 518-532. doi: 10.1007/s11199-011-9958-8

Fiske, S. T., & Neuberg, S. L. (1990). A continuum of impression formation, from category-based to individuating processes: Influences of information and motivation on attention and interpretation. In M. P. Zanna (Ed.), *Advances in Experimental Social Psychology* (Vol. 23, pp. 1-74). New York: Academic Press.

Fredrickson, B. L., & Roberts, T. (1997). Objectification theory: Toward understanding women's lived experiences and mental health risks. *Psychology Of Women Quarterly*, *21*, 173-206. doi:10.1111/j.1471-6402.1997.tb00108

Gervais, S. J., Bernard, P., Klein, O., & Allen, J. (2013). Toward a unified theory of

objectification and dehumanization. In S. J. Gervais (Ed.), *Objectification and (De)Humanization* (pp. 1-24)*.* New York, NY: Springer.

Gervais, S. J. Vescio, T. K., & Allen, J. (2011). When what you see is what you get: The consequences of the objectifying gaze for men and women. *Psychology of Women Quarterly*, *35*, 5-17. doi: 10.1177/0361684310386121

Gervais, S. J., Vescio, T. K., & Allen, J. (2012a). A test of the fungibility hypothesis from

sexual objectification theory. *British Journal of Social Psychology, 51,* 499-513.doi: 10.1111/j.2044-8309.2010.02016.x.

Gervais, S. J., Vescio, T. K., Förster, J., Maass, A., & Suitner, C.  (2012b).  Seeing women

as objects: The sexual body part recognition bias*. European Journal of Social*

*Psychology, 42*, 743-753*.* doi: 10.1002/ejsp.1890

Gray, K., Knobe, J., Sheskin, M., Bloom, P., & Barrett, L. (2011). More than a body: Mind perception and the nature of objectification. *Journal of Personality and Social Psychology, 101*, 1207-1220. doi:10.1037/a0025883

Gueguen, N. (2007). Women's bust size and men's courtship solicitation. *Body Image, 4,* 386-390. doi:10.1016/j.bodyim.2007.06.006

Hall, J. A., Coats, E. J., & Smith LeBeau, L. (2005). Nonverbal behavior and the vertical

dimension of social relations: A meta-analysis. *Psychological Bulletin, 131,* 898-924.

doi:10.1037/0033-2909.131.6.898

Heflick, N. A., & Goldenberg, J. L. (2009). Objectifying Sarah Palin: Evidence that objectification causes women to be perceived as less competent and less fully human. *Journal of Experimental Social Psychology*, *45*, 598-601. doi:10.1016/j.jesp.2009.02.008

Heflick , N.A., Goldenberg, J.L., Cooper, D.P. & Puvia, E. (2011). From women to objects: Appearance focus, target gender, and perceptions of warmth, morality and competence. *Journal of Experimental Social Psychology*, *47*, 572-581. doi:10.1016/j.jesp.2010.12.020

Heflick, N. A., & Goldenberg, J. L. (2011). Sarah Palin, a nation object(ifie)s: The role of appearance focus in the 2008 U.S. presidential election. *Sex Roles, 65*, 149-155. doi:10.1007/s11199-010-9901-41

Heilman, M. E., & Stopeck, M. H. (1985). Being attractive, advantage or disadvantage? Performance-based evaluations and recommended personnel actions as a function of appearance, sex, and job type. *Organizational Behavior and Human Decision Processes*, *35*, 202-215. doi:10.1016/0749-5978(85)90035-4

Henderson, J. M. (2003). Human gaze control during real-world scene perception. *Trends in Cognitive Sciences*, *7*, 498-504. doi:10.1016/j.tics.2003.09.006

Henderson, J. M., Williams, C. C., Castelhano, M. S., & Falk, R. J. (2003). Eye movements and picture processing during recognition. *Perception & Psychophysics*, *65*, 725-734. doi:10.3758/BF03194809

Henley, N. (1977). Body Politics: Power, Sex, and Nonverbal Communication. Englewood Cliffs, NJ: Prentice-Hall.

Hewig, J., Trippe, R. H., Hecht, H., Straube, T., & Miltner, W. R. (2008). Gender differences for specific body regions when looking at men and women. *Journal of Nonverbal Behavior*, *32*, 67-78. doi:10.1007/s10919-007-0043-5

* Holland, E. & Haslam, N. (2013). Worth the weight: The objectification of overweight versus thin targets. *Psychology of Women Quarterly.* doi:10.1177/0361684312474800

Johnson, V., & Gurung, R. R. (2011). Defusing the objectification of women by other women: The role of competence. *Sex Roles, 65*, 177-188. doi:10.1007/s11199-011-0006-5

Johnson, K. L., Lurye, L. E., & Tassinary, L. G. (2010). Sex categorization among preschool children: Increasing utilization of sexually dimorphic cues. *Child Development*, *81*, 1346-1355. doi:10.1111/j.1467-8624.2010.01476

Johnson, K. L., & Tassinary, L. G. (2005). Perceiving sex directly and indirectly: Meaning in motion and morphology. *Psychological Science*, *16*, 890-897. doi:10.1111/j.1467-9280.2005.01633

Kaschak, E. (1992). *Engendered lives: A new psychology of women's experience*. New York, NY US: Basic Books.

Kilbourne, J., & Pipher, M. (1999). *Deadly persuasion: Why women and girls must fight the addictive power of advertising*. New York: NY: Free Press.

Kozee, H. B., Tylka, T. L., Augustus-Horvath, C. L., & Denchik, A. (2007). Development and psychometric evaluation of the interpersonal sexual objectification scale. *Psychology of Women Quarterly*, *31*, 176-189. doi:10.1111/j.1471-6402.2007.00351

Latrofa, M., & Vaes, J. (2012). From ogling to dehumanization: The objectifying gaze. *Manuscript submitted for publication*.

Lindner, D., Tantleff-Dunn, S., & Jentsch, F. (2012). Social comparison and the ‘circle of

objectification’. *Sex Roles, 67*, 222-235. doi:10.1007/s11199-012-0175-x

Lippa, R. (1983). Sex typing and the perception of body outlines. *Journal of Personality*, *51*, 667-682. doi:10.1111/j.1467-6494.1983.tb00873

Loughnan, S., Haslam, N., Murnane, T., Vaes, J., Reynolds, C., & Suitner, C. (2010). Objectification leads to depersonalization: The denial of mind and moral concern to objectified others. *European Journal of Social Psychology*, *40*, 709-717. doi:10.1002/ejsp.755

Loughnan, S., Fernandez, S., Vaes, J., Anjum, G., Aziz, M., Harada, C., Holland, E., Puvia, E., Singh, I.,& Tsuchiya, K. (2013). Sexual objectification is common in Western, but not non-Western nations: A seven nation study of sexual objectification. *Manuscript submitted for publication.*

[Miller, G. A.](http://en.wikipedia.org/wiki/George_Armitage_Miller) (1956). The magic number seven, plus or minus two: Some limits on our capacity for processing information. *Psychological Review* 63, 81–97. [doi](http://en.wikipedia.org/wiki/Digital_object_identifier):[10.1037/h0043158](http://dx.doi.org/10.1037%2Fh0043158)

Moradi, B., & Huang, Y. (2008). Objectification theory and psychology of women: A decade of advances and future directions. *Psychology of Women Quarterly*, *32*, 377-398. doi:10.1111/j.1471-6402.2008.00452

Morton, J., & Johnson, M. H. (1991). CONSPEC and CONLERN: A two-process theory of infant face recognition. *Psychological Review*, *98*, 164-181. doi:10.1037/0033-295X.98.2.164

Mulvey, L. (1975). Visual pleasure and narrative cinema. *Screen*, *16*, 6–18.

Pope, H., Katz, D., & Hudson, J. (1993). Anorexia nervosa and ‘‘reverse anorexia’’ among 108

male bodybuilders. *Comprehensive Psychiatry, 34,* 406–409 doi: 10.1016/0010–

440X(93)90066-D

Puvia, E., & Vaes, J. (2012). Being a body: Women’s appearance related self-views and their dehumanization of sexually objectified female targets. *Sex Roles, 68,* 484–495*,* doi:10.1007/s11199-012-0255-y

Saguy, T., Quinn, D. M., Dovidio, J. F., & Pratto, F. (2010). Interacting like a body: Objectification can lead women to narrow their presence in social interactions. *Psychological Science*, *21*, 178-182. doi:10.1177/0956797609357751

Stangor, C., Lynch, L., Duan, C., & Glass, B. (1992). Categorization of individuals on the basis of multiple social features. *Journal of Personality and Social Psychology*, *62*, 207-218. doi:10.1037/0022-3514.62.2.207

Strelan, P., & Hargreaves, D. (2005). Women who objectify other women: The vicious circle of objectification? *Sex Roles*, *52*, 707-712. doi:10.1007/s11199-005-3737-3

Vaes, J., Paladino, P., & Puvia, E. (2011). Are sexualized women complete human beings? Why men and women dehumanize sexually objectified women. *European Journal of Social Psychology*, *41*, 774-785. doi:10.1002/ejsp.824

Young, I. M. (2003). Breasted experience: The look and the feeling. In R. Weitz (Ed.), *The*

*politics of women’s bodies* (pp. 152–163). New York, NY: Oxford University Press.

Yu, D. W. & Shepard, G. H. (1998). Is beauty in the eye of the beholder? *Nature, 396,* 321-322.

doi:10.1038/24512

Zelazniewicz, A. M., & Pawlowski, B. (2011). Female breast size attractiveness for men as a function of sociosexual orientation (restricted vs. unrestricted). *Archives of Sexual Behavior, 40*, 1129-1135. doi:10.1007/s10508-011-9850-1

Zurbriggen, E. L., Ramsey, L. R., & Jaworski, B. K. (2011). Self- and partner-objectification in romantic relationships: Associations with media consumption and relationship satisfaction. *Sex Roles, 64*, 449-462. doi:10.1007/s11199-011-9933-4

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| Table 1  *Race/Ethnicity and Age for Women and Men* | | | |  |  |  |
|  | Age | Caucasian | Hispanic/  Latin  American | Asian/  Pacific  Islander | Black/  African  American | Other |
| Women | 18-30  *M =* 20.14  *SD =* 2.79 | 82.8%  *n =* 24 | 6.9%  *n =* 2 | 3.4%  *n* = 1 | 6.9%  *n =* 2 | 0%  *n =* 0 |
| Men | 18-23  *M* = 19.56  *SD =* 1.34 | 86.1%  *n =* 31 | 2.8%  *n* = 1 | 2.8%  *n* = 1 | 0%  *n =* 0 | 8.3%  *n =* 3 |

*Note. M =* mean, *SD =* standard deviation.

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| Table 2  *Dwell Time Means (Standard Errors) as a Function of Body Part and Appearance-Focus* | | | |
|  | Face | Chest | Waist |
| Appear | Women = 1157.71 (132.26)a  Men = 1295.82 (98.97)a | Women = 463.22 (48.09)c  Men = 448.25 (35.98)c | Women = 331.27 (33.06)e  Men = 301.00 (24.73)e |
| Person | Women = 1619.40 (127.77)b  Men = 1873.54 (149.21)b | Women = 276.48 (46.46)d  Men = 338.78 (54.25)d | Women = 227.16 (31.93)f  Men = 207.03 (37.29)f |

*Note.* Means for women and men did not significantly differ. Means within columns (i.e., comparing faces, chests, and waists) and within rows (i.e., comparing appearance-focus and personality-focus) with different subscripts are significantly different, *p*s< .004. All values are milliseconds and higher scores indicate more attention. Degrees of freedom (1.09, 66.25). Appear = appearance-focus condition. Person = personality-focus condition.

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| Table 3  *Dwell Time Means (Standard Errors) as a Function of Body Part and Ideal Body Shape* | | | |
|  | Face | Chest | Waist |
| High | Women = 1347.60 (96.75)a  Men = 1519.80 (94.20)a | Women = 446.00 (45.44)c  Men = 456.42 (44.24)c | Women = 273.79 (26.35)e+  Men = 280.35 (25.66)e+ |
| Average | Women = 1406.39 (88.42)b  Men = 1606.28 (86.08)b | Women = 354.35 (30.21)d  Men = 358.47 (29.41)d | Women = 272.87 (23.35)f  Men = 235.44 (22.73)f |
| Low | Women = 1411.67 (102.04)b  Men = 1627.94 (99.35)b | Women = 309.20 (35.28)d  Men = 365.65 (34.35)d | Women = 290.99 (26.12) ef  Men = 246.26 (25.43) ef |

*Note.* Means for women and men did not significantly differ. Means within columns (i.e., comparing faces, chests, and waists) and within rows (i.e., comparing high ideal, average, and low ideal body shapes) are significantly different, *p*s< .05, +*p =* .078. All values are milliseconds and higher scores indicate more attention. Degrees of freedom = (2.58, 157.51). High = high ideal body shape condition. Average = average body shape condition. Low = low ideal body shape condition.

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| Table 4  *Dwell Time Means (Standard Errors) as a Function of Body Part, Ideal Body Shape, and Focus* | | | |
|  | Face | Chest | Waist |
| Appear |  |  |  |
| High | Women = 1095.66 (139.17)a  Men = 1163.78 (104.15)a | Women = 550.00 (65.36)c  Men = 551.09 (48.91)c | Women = 327.40 (37.90)e  Men = 321.06 (28.36)e |
| Average | Women = 1198.09 (127.18)b  Men = 1359.44 (95.17)b | Women = 432.37 (43.45)d  Men = 398.11 (32.52)d | Women = 326.77 (33.58)e  Men = 288.66 (25.13)e |
| Low | Women = 1179.37 (146.78)b  Men = 1364.24 (109.84)b | Women = 407.29 (50.75)d  Men = 395.55 (37.98)d | Women = 339.63 (37.58)e  Men = 293.28 (28.12)e |
| Person |  |  |  |
| High | Women = 1599.55 (134.45)a  Men = 1875.82 (157.01)a | Women = 342.00 (63.14)b  Men = 361.75 (73.73)b | Women = 220.19 (36.62)d  Men = 239.64 (42.76)d |
| Average | Women = 1614.69 (122.86)a  Men = 1853.13 (143.47)a | Women = 276.32 (41.98)bc  Men = 318.84 (49.02)bc | Women = 218.96 (32.44)d  Men = 182.22 (37.89)d |
| Low | Women = 1643.97 (141.80)a  Men = 1891.64 (165.59)a | Women = 211.12 (49.03)c  Men = 335.75 (57.25)c | Women = 242.35 (36.30)d  Men = 199.24 (42.39)d |

*Note.* Means for women and men did not significantly differ. Means within columns (i.e., comparing faces, chests, and waists) and within rows (i.e., comparing high ideal, average, and low ideal body shapes) for appearance-focus and personality-focus with different subscripts are significantly different, *p*s< .03. All values are milliseconds and higher scores indicate more attention. Degrees of freedom (2.58, 157.51). Appear = appearance-focus condition. Person = personality-focus condition. High = high ideal body shape condition. Average = average body shape condition. Low = low ideal body shape condition.

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| Table 5  *First Fixation Time Means (Standard Errors) as a Function of Body Part, Ideal Body Shape, and Focus* | | |
|  | Face | Waist |
| Appear |  |  |
| High | Women = 392.91 (56.31)a  Men = 439.21 (42.14)a | Women = 441.81 (71.86)ac  Men = 335.18 (53.77)ac |
| Average | Women = 416.64 (58.21)a  Men = 415.81 (43.56)a | Women = 524.21 (78.31)ac  Men = 408.80 (58.60)ac |
| Low | Women = 347.41 (36.85)b  Men = 366.84 (27.57)b | Women = 503.80 (74.04) c *p = .*07  Men = 376.91 (55.40) c *p = .*07 |

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| Person | |  |
| High | Women = 273.88 (54.40)a  Men = 310.29 (63.53)a | Women = 389.36 (69.42)b *p* = .08  Men = 430.49 (81.07)b *p* = .08 |
| Average | Women = 283.51 (56.23)a  Men = 303.49 (65.67)a | Women = 541.28 (75.66)b  Men = 366.29 (88.35)b |
| Low | Women = 276.04 (35.60)a  Men = 306.70 (41.57)a | Women = 452.42 (71.53)a  Men = 161.81 (83.52)a |

*Note.* Means for women and men did not significantly differ. Means within rows (i.e., comparing faces and waists) and within columns (i.e., comparing high ideal, average, and low ideal body shapes) for appearance-focus and personality-focus with different subscripts are significantly different, *p* < .05. All values are milliseconds and lower scores indicate more attention. Degrees of freedom (2, 122). Appear = appearance-focus condition. Person = personality-focus condition. High = high ideal body shape condition. Average = average body shape condition. Low = low ideal body shape condition.

Appendix

High Ideal Average Low Ideal

