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# Beauty Is in the Eye of the Beer Holder: An Initial Investigation of the Effects of Alcohol, Attractiveness, Warmth, and Competence on the Objectifying Gaze in Men

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# Beauty Is in the Eye of the Beer Holder: An Initial Investigation of the Effects of Alcohol, Attractiveness, Warmth, and Competence on the Objectifying Gaze in Men

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## Abstract

Despite literature revealing the adverse consequences of objectifying gazes for women, little work has empirically examined origins of objectifying gazes by perceivers. Integrating alcohol myopia and objectification theories, we examined the effects of alcohol as well as perceived female attractiveness, warmth, and competence on objectifying gazes. Specifically, male undergraduates ( $n = 49$ ) from a large U.S. Midwestern university were administered either an alcoholic or placebo beverage. After consumption, participants were asked to focus on the appearance or personality (counterbalanced) of pictured women who were previously rated as high, average, or low in attractiveness, warmth, and competence. Replicating previous work, appearance focus increased objectifying gazes as measured by decreased visual dwell time on women's faces and increased dwell time on women's bodies. Additionally, alcohol increased objectifying gazes. Whereas greater perceived attractiveness increased objectifying gazes, more perceived warmth and perceived competence decreased objectifying gazes. Furthermore, the effects of warmth and competence perceptions on objectifying gazes were moderated by alcohol condition; intoxicated participants objectified women low in warmth and competence to a greater extent than did sober participants. Implications for understanding men's objectifying perceptions of women are addressed, shedding light on potential interventions for clinicians and policymakers to reduce alcohol-involved objectification and related sexual aggression.

**Keywords:** Objectification, Myopia, Eye fixation, Alcohol intoxication, Physical attractiveness, Competence, Impression formation, Humanization

Fill another cup up  
 Feeling on yo butt what?  
 You don't even care now  
 I was unaware of how fine you was  
 Before my buzz set in,  
 My buzz set in  
 Blame it on the booze  
 – *Blame It*, song by Jamie Foxx  
[youtube.com/watch?v=rfjtpp90lu8](https://www.youtube.com/watch?v=rfjtpp90lu8)

The objectifying gaze—staring at people’s bodies and body parts—is a prevalent and damaging manifestation of objectification that is often directed at women from men (Archer et al. 1983; Fredrickson and Roberts 1997; Kaschak 1992; Kozee et al. 2007; Moradi and Huang 2008; Mulvey 1975). Objectifying gazes indicate to women they are being reduced to their body parts for the pleasure of the viewer, resulting in myriad adverse outcomes (Fredrickson and Roberts 1997). Environments in which alcohol is present are ripe with opportunities for objectifying gazes, as indicated in the media (e.g., Jamie Foxx’s song *Blame It*) and through empirical examinations (Gervais et al. 2014). Importantly, adopting objectifying gazes toward women leads perceivers to dehumanize women (Heflick and Goldenberg 2011; Heflick et al. 2011), potentially laying the foundation for many negative consequences such as sexual violence (Rudman and Mescher 2012) and workplace gender discrimination (Rudman and Borgida 1995).

Despite theorizing about the importance of the objectifying gaze (Fredrickson and Roberts 1997), self-reports from women experiencing the gaze (Kozee et al. 2007), and self-reports of men perpetrating the gaze (Gervais et al. 2014), surprisingly little research has examined which factors affect this objectionable behavior. The only known published studies on the objectifying gaze using behavioral measures to date suggest that as focus on appearance increases, the objectifying gaze also increases (Gervais et al. 2013). Much less is known about specific contextual, perpetrator, or recipient variables that facilitate or attenuate the objectifying gaze. Further, despite anecdotal accounts that alcohol increases objectification, only one known study has examined this link empirically (Gervais et al. 2014) and the results from that study were based on self-reports.

The present study expands the scientific understanding of factors that increase the objectifying gaze in men, specifically examining the role of alcohol, appearance focus, as well as perceived attractiveness, warmth, and competence of women. Extending prior work beyond self-reports, we conducted an initial investigation of the effect of alcohol on objectification by manipulating alcohol intoxication using alcohol administration procedures in the laboratory and examining the objectifying gaze via eye-tracking technology. Before conducting the main eye-tracking study, we conducted a preliminary study in which photographs of women were rated on perceived attractiveness, warmth, and competence—variables that were then manipulated in the present study. Understanding why the objectifying gaze occurs in the first place is an initial step toward stopping its incidence and its damaging effects.

Social perception research reveals that perceivers spontaneously attend to other people’s visual appearance to quickly and effortlessly gain information about them. Perceivers rely on social category memberships such as race or sex and other

physical features such as facial appearance, weight, or clothing to form these first impressions (Allport 1954; Fiske and Neuberg 1990; McArthur and Baron 1983; Miller 1988; Tajfel 1981). Although a range of body parts can relay important information about individual characteristics, previous research shows that faces are most informative regarding key features needed for initial impression formation (i.e., an individual's identity, social categories, emotions, behavioral intentions, and health; Ekman 1993; Hall et al. 2005). Indeed, a number of studies find that during social interactions, people usually attend to faces more quickly and more frequently than other body parts (Henderson 2003; Henderson et al. 2003; Hewig et al. 2008; Morton and Johnson 1991; Stangor et al. 1992).

Given the multitude of features visually salient during interactions, perceivers must be selective in their allocation of attention to targets' various features (Cowan 2005; Miller 1956). Although attention to faces tends to dominate person perception, objectification theory suggests that this is not always the case in the perception of women (Fredrickson and Roberts 1997). When women are objectified, their bodies and body parts are theorized to be attended to more whereas their faces are attended to less than in typical social interactions (see also Archer et al. 1983). Deemed the "objectifying gaze," (Fredrickson and Roberts 1997, p. 175; see also Kaschak 1992; Mulvey 1975) this attention pattern is marked by a shift in focus to the body and away from the face. To illustrate, when participants are asked to objectify women by evaluating their appearance (Heflick and Goldenberg 2009), as opposed to their personality, they spend less time looking at women's faces and more time looking at women's sexual body parts (Gervais et al. 2013). In the next sections, we turn to potential predictors of the objectifying gaze that are of both theoretical and practical importance.

### ***Alcohol Consumption***

According to alcohol myopia theory (Steele and Josephs 1990), alcohol intoxication limits the amount of information people can process, leading to increased attention to the most salient cues through a narrowing of perceptual field and reduced cognitive functioning. Integrating alcohol myopia theory with objectification theory, Gervais et al. (2014) suggested that alcohol use may cause more objectification perpetration due to the narrowing of the perceptual field that follows from intoxication. Specifically, intoxicated individuals have fewer cognitive resources to process the cues in their environment; more salient, instigating cues tend to capture attention whereas less salient, inhibiting cues receive less attention. When deciding whether to drive home after a night of heavy drinking, for example, intoxicated individuals may focus on the impelling, proximal cues in the immediate environment (e.g., the keys in their pocket or their car parked outside) and less on potentially inhibiting, distal cues (e.g., getting arrested or injuring oneself or another in a car accident) because their limited attention allows them to focus only on the most salient cues in the situation. Likewise, when presented with provocatively dressed women, myopia may lead intoxicated men to focus on more immediate and salient cues that are easier to process due to the disproportionate emphasis on women's sexual body parts in the media (Fredrickson and Roberts 1997) and/or the evolutionary significance of women's body parts (Buss 1989; cf. Tassinary and Hansen 1998), rather than less provocative cues like their faces.

Consistent with this idea, when presented with scantily clad and nude women, men bias their fixations away from faces, focusing more on bodies (Lykins et al. 2008; Nummenmaa et al. 2012; Wenzlaff et al. 2015). The present work builds on this prior work by examining the role of alcohol intoxication in predicting objectifying gazes toward provocatively dressed women.

Moreover, myopia theory suggests that, whereas sober individuals can attend to a full range of cues including those that inhibit inappropriate behaviors, intoxication renders individuals less capable of comprehending inhibiting cues (e.g., considering long-term consequences) making them less likely to experience inhibition conflict (Steele and Josephs 1990). Consistent with this idea, intoxicated individuals often struggle to inhibit socially inappropriate behaviors (Hoffman et al. 2011; Hull and Bond 1986). Objectifying gazes from men toward women are normalized and justified within society (Calogero and Tylka 2014, e.g., media depictions of men as unable to help themselves from ogling women abound). Yet, there is evidence suggesting that objectifying gazes are still regarded as socially inappropriate; for example, men who are concerned about being perceived in favorable ways by others report engaging in fewer objectifying gazes (Gervais et al. 2017). Alcohol's myopic effects, however, may further inhibit the perceiver's ability to draw his attention away from women's sexually salient body parts. In support of this possibility, Gervais et al. (2014) found significant associations between alcohol use and objectification, but this finding was correlational and does not allow for causal inferences. Furthermore, Gervais et al. relied upon self-report measures whereas alcohol myopia theory focuses specifically on the physiological effects of alcohol and related attention mechanisms, which are difficult to assess with retrospective self-reports.

### ***Attractiveness***

According to objectification theory, women live in a culture that places disproportionate emphasis on their physical beauty, suggesting women's value is predominantly contingent on their appearance (Fredrickson and Roberts 1997). Although facial attractiveness is an important feature of overall attractiveness, the weight and shape of women's bodies and body parts are also thought to play a prominent role in determining women's attractiveness. Consistent with this idea, studies manipulating breast size of women provide evidence that women's bodies influence judgments of attractiveness; women with larger than average breasts are rated as more attractive and receive more sexual advances (Gueguen 2007; Zelazniewicz and Pawlowski 2011). Importantly, men and women spend less time looking at the faces, and more time on the chests and waists, of women with more attractive relative to less attractive bodies (Gervais et al. 2013).

### ***Humanization***

Although we rely on observable, visual information during person perception, these processes also allow perceivers to gain a wealth of information regarding non-observable characteristics, such as personalities, goals, or current emotional states of others. Stated differently, although attention to superficial, observable attributes results in information on the target's appearance-related qualities,

person perception also can lead to impressions of qualities that lie below the surface—those features that make someone human. With very little effort, for example, perceivers spontaneously categorize people into social groups, which in turn activates stereotypes about the characteristics those category members possess (Bodenhausen et al. 1997; Fiske and Neuberg 1990). Although these stereotypes are often inaccurate (for a review see Jussim 2012), people still render first impressions regarding other people’s personalities, including morality and competence (Wojciszke 2005).

Perceptions of warmth (i.e., positive or negative intentions toward others, Fiske et al. 2002; Gray et al. 2007; Harris and Fiske 2009; Haslam et al. 2008) and competence (i.e., how effectively one can pursue intentions, Fiske et al. 2002; Gray et al. 2007) are two traits that have been deemed essential in perceiving others as human (Fiske 2013; Harris and Fiske 2006, 2009). Although traits such as warmth and competence are attributed to non-human entities through the process of anthropomorphism (Epley et al. 2007; Gray et al. 2007), many scholars have argued that attributing people with less competence and/or warmth represents a form of relative dehumanization (Haslam and Loughnan 2014). In Haslam’s two-factor model of humanization (Haslam 2006, p. 254; Haslam et al. 2005, p. 937), for example, warmth is a central “human nature” attribute that differentiates humans from objects, and competence is a central “human uniqueness” attribute that differentiates us from animals.

Interestingly, attributions of warmth and competence are often gendered with women who fit traditional roles such as housewives perceived as higher in warmth but lower in competence, whereas nontraditional women including feminists and business women perceived as lower in warmth and higher in competence (Cuddy et al. 2004; Eckes 2002; Fiske et al. 2002). Considered through the dehumanization lens (Fiske 2013; Haslam 2006, 2005), women appear to be susceptible to relative dehumanization, being denied either warmth or competence. Although these inferred traits are only perceptions of targets’ qualities, and thus are sometimes inaccurate, perceived traits can powerfully shape the ways in which perceivers see and subsequently interact with targets (Snyder et al. 1977).

Although greater levels of attractiveness may increase objectifying gazes, we also reasoned that physical information that emphasizes women’s warmth and/or competence might decrease objectifying gazes. Supporting this notion, appearance focus increases objectification, but person focus has the opposite effect; when perceivers focus on the personhood of a female they attribute her more warmth and competence than when they focus on her physical appearance (Heflick and Goldenberg 2009; Heflick et al. 2011). Building on prior work that has primarily focused on the dehumanizing consequences of objectification suggesting objectified women are regarded as less warm and competent (Heflick and Goldenberg 2009; Heflick et al. 2011; see also Loughnan et al. 2010; Vaes et al. 2011), we focused on the inverse—whether humanization causes less objectification. Consistent with this idea, humanizing information about the warmth and competence of sexualized women causes people to perceive women in less objectifying and more humanizing ways (e.g., seeing women in more holistic rather than piecemeal ways; Bernard et al. 2015). Prior work has not, however, specifically focused on objectifying gazes. Furthermore, previous work has introduced warmth and competence information about women via written

descriptions as opposed to the visual manner in which warmth and competence attributes are commonly conveyed.

## Overview and Hypotheses

Although a large body of research has established women's frequent experiences of objectifying gazes (e.g., Kozee et al. 2007), little work has examined the origins of these behaviors. The current study examines a situational variable—alcohol consumption—to determine whether intoxication increases objectifying gazes as well as interacts with perceived attractiveness, warmth, and competence to influence objectifying gazes directed at female targets. Furthermore, most studies examining objectification perpetration have focused on very attractive women (e.g., swimsuit models; Bernard et al. 2012; Loughnan et al. 2010; Vaes et al. 2011; celebrities; Heflick and Goldenberg 2009). As a result, less is known about when and why people objectify women who are less attractive, even though average and less attractive women self-report objectification (Kozee et al. 2007; Swim et al. 2001). Additionally, we sought to extend previous research revealing that objectification causes dehumanization by examining whether women who appear less warm or less competent are objectified more than women who appear more warm or more competent.

As an initial examination of these ideas, we tested the effect of alcohol and target appearance and human attributes on objectifying gazes through the use of a 2 alcohol condition (placebo, alcohol)  $\times$  3 body part (face, chest, waist)  $\times$  2 focus (appearance, personality)  $\times$  3 attribute level (high, average, low) mixed model design, with alcohol condition as the between-participants variable. Using alcohol administration procedures, participants were randomized to an alcohol condition in which they believed they could be administered alcohol; those in the alcohol condition were given an alcohol dose to get them moderately intoxicated (Breath alcohol concentration, BrAC = .08), and those in the placebo control condition were given only a trivial amount of alcohol placed on the rim and top of the glass. We utilized a placebo control condition because alcohol consumption can also lead to expectations of disinhibition in sexual situations (Ven and Beck 2009). Because our integration of objectification and alcohol myopia theory focuses primarily on the physiological effects of alcohol, we attempted to keep expectations consistent across conditions; all participants believed they could be drinking alcohol and were exposed to alcohol cues including the smell and taste of alcohol.

Male participants completed two eye-tracking tasks in which focus was a within-participants variable manipulated through instructions to evaluate pictured female targets' appearance (appearance focus condition) and personality (personality focus condition, counterbalanced) while either sober (placebo condition) or intoxicated (alcohol condition). Attractiveness, warmth, and competence were manipulated within-participants during the eye-tracking task using images of female targets previously identified as high, average, or low in perceived attractiveness, warmth, and competence based on ratings in a separate preliminary study. As in prior research (Gervais et al. 2013) and consistent with objectification theory (Fredrickson and Roberts 1997), objectifying gazes were operationalized by



a greater focus on targets' sexual body parts (i.e., chests and waists) as well as a lesser focus on targets' faces.

We thus tested four hypotheses. First, replicating previous work (Gervais et al. 2013), we expected a focus  $\times$  body part interaction; we hypothesized that participants would dwell on faces for shorter durations and waists and chests for longer durations in the appearance focus compared to the personality focus condition (Hypothesis 1). Second, given the high comorbidity of alcohol use and objectification perpetration (Gervais et al. 2014), we also expected an alcohol  $\times$  body part interaction (Hypothesis 2). Specifically, we hypothesized that participants would dwell on faces for shorter durations and waists and chests for longer durations in the alcohol compared to the placebo condition.

We also predicted attribute  $\times$  body part interactions, revealing that perceived attractiveness, warmth, and competence influence objectifying gazes (Hypothesis 3). On the one hand, greater attractiveness was expected to increase objectifying gazes; we hypothesized that participants would dwell on faces for shorter durations and waists and chests for longer durations of attractive women relative to average or unattractive women. On the other hand, extending previous research, greater competence and warmth were expected to reduce objectifying gazes; we hypothesized that participants would dwell on faces for longer durations and waists and chests for shorter durations of women previously rated as high in warmth or competence relative to women previously rated as average or low in warmth or competence.

Finally, we explored whether alcohol further moderated the effects of perceived attractiveness, warmth, or competence on objectifying gazes by examining attribute  $\times$  alcohol  $\times$  body part three-way interactions (Hypothesis 4). Relying on our integration of alcohol myopia and objectification theories, we expected alcohol intoxication to increase objectifying gazes; we hypothesized that participants would dwell on faces for shorter durations and waists and chest for longer durations of women high in attractiveness and low in warmth or competence in the alcohol compared to the placebo condition.

## **Method**

### ***Participants***

An estimated sample size using Cohen's (1988) guidelines was calculated for detecting hypothesized effects. Given that this is an initial study in the examination of alcohol on objectification and because no known experimental research has been conducted examining the influence of alcohol on the objectifying gaze, we estimated medium effect sizes. Using this effect size assumption with 80% power and a 5% chance of Type I error, an overall sample size of 50 (25 in each condition) would be sufficient to detect effects between and within both groups. Prior work examining the objectifying gaze as a result of appearance focus relative to personality focus showed that 15–20 participants were needed to detect between-participants effects (Gervais et al. 2013).

In the present work, we manipulated focus (appearance vs. personality) within-participants to further boost power and relied upon a sound integration of

objectification and alcohol myopia theories to develop a priori hypotheses. A total of 49 heterosexual male undergraduate students from a large U.S. midwestern university participated in exchange for either course credit or \$10 an hour, depending on which they were interested in obtaining. Although 50 participants were sought in line with our power analyses, only 49 participants were actually run due to participant recruitment scheduling exigencies (e.g., participants were unavailable after the end of the semester). Participants identified primarily as White ( $n = 38, 77.6\%$ ), as well as African American ( $n = 4, 8.2\%$ ), Hispanic ( $n = 4, 8.2\%$ ), Asian/Pacific Islander ( $n = 2, 4.1\%$ ), and Native American ( $n = 1, 2\%$ ). Age of participants ranged between 21 and 27 years ( $M = 22.14, SD = 1.61$ ).

### **Materials and Stimuli**

Prior to conducting the main eye-tracking study, 80 undergraduate women were recruited to have their pictures taken for use as future study stimuli. These participants were asked to come to the lab dressed in "going out attire." (See Fig. 1s in the supplementary material for an example; all stimuli are available for research purposes on request of the first author.) In the lab, pictures were taken in front of a neutral backdrop while the participant was standing, directly facing the camera, and smiling. All photographed participants consented to the use of their photos for research purposes in which future participants would be shown their pictures.

Each of these images was then submitted to pre-test ratings before use as eye-tracking stimuli. Specifically, 309 male and female participants recruited from Amazon's Mechanical Turk were asked to use a 5-point scale to rate the woman pictured across a number of appearance and human-related attributes, with response options ranging from 1 (*not at all*) to 5 (*extremely*). To reduce potential fatigue, each participant was presented with five images of women randomly selected of the 80, resulting in 15–25 participants rating each image. Participant ratings of physical attractiveness (assessed via a single item), warmth (i.e., warm, good-natured, friendly, agreeable, likeable, tolerant; range 3.01–4.05;  $\alpha = .95$ ; adapted from Fiske et al. 2002), and competence (i.e., competent, confident, intelligent, conscientious; range 2.88–3.89;  $\alpha = .81$ ; adapted from Fiske et al. 2002) were included in the present analyses. Ratings of attractiveness, warmth, and competence were averaged across participants for each of the 80 images.

Based on these averages, each image was grouped into either a high, average, or low level of each of the three attributes—attraction, warmth, and competence (e.g., one image could be rated as high in attractiveness, low in warmth, and average in competence) resulting in the perceived high, average, and low conditions of attractiveness, warmth, and competence. For the purposes of the current study we compared the high, average, and low groupings of attractiveness, warmth, and competence from the entire sample to the ratings made specifically by the young men ( $n = 29, 18$ – $30$  years-old) in the pilot sample to match the sample used within the study. Consistent with the results for the larger sample, we found that young men also rated the highly attractive women ( $M = 3.99, SD = .54$ ) as more attractive than average attractive women ( $M = 3.22, SD = .74, t(48) = 4.25, p < .001, d = 1.20$ ), and as more attractive than the low attractive women ( $M = 2.47, SD = .79, t(51) = 8.13, p < .001, d = 2.24$ ). Average attractive women were also rated

as more attractive than low attractive women,  $t(49) = 3.49, p = .001, d = .98$ . Young men also regarded high warmth women ( $M = 3.87, SD = .38$ ) as more warm than the average warmth women ( $M = 3.64, SD = .44, t(51) = 2.08, p = .04, d = .57$ ), as well as low warmth women ( $M = 3.43, SD = .34, t(51) = 4.47, p < .001, d = 1.23$ ). Average warmth women were also rated as more warm than low warmth women,  $t(50) = 1.94, p = .05, d = .54$ . Finally, young men regarded high competence women ( $M = 3.73, SD = .54$ ) as more competent than average competence women ( $M = 3.49, SD = .31, t(51) = 1.98, p = .05, d = .55$ ), and low competence women ( $M = 3.25, SD = .40, t(51) = 3.67, p = .001, d = 1.01$ ). Average competence women were also rated as more competent than low competence women,  $t(50) = 2.41, p = .02, d = .67$ . Thus, these results suggest that the groupings of women into perceived low, average, and high in terms of attractiveness, warmth, and competence generalize to young men's perceptions of women. Competence and warmth were positively significantly correlated,  $r = .50, p < .001$ ; however, attractiveness was not significantly correlated with competence ( $r = .19, p = .12$ ) or warmth ( $r = .17, p = .14$ ).

For the eye-tracking portion of the study, we created template boxes for each model to capture interest areas (as in Gervais et al. 2013) to be used during data analyses; however, boxes were not visible to participants. The three interest area—(a) face (i.e., chin to forehead, ear to ear), (b) chest (i.e., slightly below the shoulders to slightly below the breasts, between armpits), and (c) waist (i.e., slightly below the breasts to slightly above the pelvis, between hips)—were outlined with rectangular boxes. We focused on faces, chests, and waists because breasts and waists are regarded as cultural indicators of attractiveness (e.g., women with large breasts or “hour-glassed” shaped figures are regarded as attractive; Zelazniewicz and Pawlowski 2011) and because these body parts are regarded as the most objectified parts of women (Bartky 1990). Measuring dwell time on women's faces allowed us to compare visual attention directed toward humanizing aspects of targets compared to objectified body parts including chests and waists. Consistent with prior work on the objectifying gaze (Gervais et al. 2013) and due to the variability in visibility (e.g., target wearing skirt vs. pants or wearing flat shoes vs. sandals), we did not analyze dwell times for legs or feet. Although differences in head and body sizes resulted in slight variation across photographs, template boxes were sized to ensure that each interest area was fully represented and approximately the same size across models to enable comparisons. Template boxes were applied to each stimuli following data collection, and dwell time was calculated by summing the total duration in milliseconds (ms) participants spent fixating on the target's face, chest, and waist over the duration of each trial (see Gervais et al. 2013).

## Procedure

All procedures were approved by the Institutional Review Board of the home university. Male undergraduate students were recruited from classrooms and the psychology department subject pool to participate in a study entitled “Alcohol and Media Preferences.” After emailing to indicate interest, participants were called by a research assistant to complete a phone screen. During this brief phone call, participants were screened for their gender, minimum age of 21 years-old, and

sexual attraction to women. Furthermore, due to risks associated with alcohol consumption, participants were also excluded for (a) current/past alcohol dependence, alcohol-related treatment, or hospitalization, (b) not being a social drinker—consuming two or more drinks at least twice monthly, (c) any past serious head injuries, (d) serious psychological symptoms, and (e) medical or legal contradictions to the consumption of alcohol (Watkins et al. 2015). Once screened, participants were emailed a link to complete an online survey prior to the in-lab session. The survey link directed participants to complete a battery of individual difference measures unrelated to the present study's hypotheses through Qualtrics (see Haikalis et al. 2017, manuscript in preparation and Franz et al. 2017). Prior to the laboratory session, participants were asked to refrain from drinking alcohol 24 h prior, as well as eating 4 h prior to the study. They were also notified that they would need someone to pick them up at the conclusion of the study and, if given alcohol, they would be required to remain at the laboratory until they reached a BrAC of .03%.

Upon arrival to the lab, participants were greeted by a female research assistant and randomly assigned to the alcohol or placebo condition. The inclusion of a placebo control condition allowed us to examine the physiological effects of alcohol, holding alcohol expectations constant (Fillmore and Vogel-Sprott 1998). After verifying participants' age based on their driver's licenses and ensuring they had a ride home following completion of the study, the research assistant locked up their keys for safe keeping. Next, the research assistant reviewed the informed consent with participants to ensure comprehension that participants may be given alcohol and those randomized to the alcohol condition would be required to stay at the laboratory until their BrAC reached below .03%. Additionally, the research assistant administered an alcohol waiver and traumatic brain injury screening to ensure that drinking was not contraindicated. Following consent processes, the research assistant weighed participants and administered a breathalyzer to verify sobriety.

### ***Alcohol Administration***

While the research assistant was obtaining this information from participants, a second research assistant mixed drinks for participants based on condition (procedure following Giancola 2002; Giancola et al. 2009a, b; Watkins et al. 2015). The manipulation of alcohol condition was a single-blind procedure; however, the research assistants were unaware of the specific hypotheses regarding alcohol and objectification, reducing the possibility of experimenter effects. In the placebo condition, the research assistant filled two rock glasses about three-fourths of the way with orange juice. Next, two milliliters of Everclear grain alcohol was injected deep into the center of each of the drinks, and another two milliliters of Everclear was layered on the top of each drink. Finally, each of the glasses was misted with alcohol from a spray bottle; the rim of each glass was coated to provide the smell and taste of alcohol.

We utilized a placebo control condition because alcohol consumption can also lead to expectations of disinhibition across a variety of situations (Ven and Beck 2009). Because our integration of objectification and alcohol myopia theory focuses primarily on the physiological effects of alcohol, we attempted to keep

expectations consistent across conditions (i.e., all participants believed they could be drinking). To achieve a BrAC of .08 in the alcohol condition, the research assistant calculated the mixture of alcohol and orange juice to fill two pint glasses (participant's weight in kilograms  $\times$  1.06 = milliliters of alcohol; milliliters of alcohol  $\times$  5 = milliliters of orange juice). Each volume of alcohol and orange juice was measured separately, mixed together, and poured into the glasses. In both conditions, the two drinks were presented to participants with directions to drink them within 20 min. Following consumption, participants in the placebo condition were breathalyzed and continued on to the next task; participants in the alcohol condition were given 15 min to absorb the alcohol. After the 15-min absorption period, participants were breathalyzed. If participants were at or above a BrAC of .07, they continued on to the next task; if below a BrAC of .07 they were given another 8 min for absorption. If participants were below a BrAC of .07 after the 8 additional minutes, they were given an additional 7 min. At that point, participants were led to the next task regardless of whether their BrAC was below .07. Although our intent was to reach a BrAC of .08, due to the ascending curve of blood alcohol content (where BrAC levels ascend before plateauing and ultimately descending), a BrAC of .07 was used as a threshold assuming participants BrAC would continue to ascend to .08. Because placebo manipulations are effective for a short period of time (i.e., it becomes apparent that they did not drink an alcoholic beverage; Bradlyn and Young 1983; Martin et al. 1990; Martin and Sayette 1993), participants in the placebo condition were moved on to the next task immediately after consumption (Giancola 2004; Phillips and Giancola 2008). Before (immediately after absorption) and after the eye-tracking task, participants rated how intoxicated they were on a scale from 0 to 10 from 0 (*not drunk at all*) through 8 (*as drunk as I have ever been*) to 10 (*more drunk than I have ever been*).

### **Eye-Tracking Task**

Following consumption and absorption of the drinks, objectifying gazes were measured using an SR Research Ltd. EyeLink II system (Mississauga, Ontario, Canada), with high spatial resolution and a sampling rate of 500 Hz. Thresholds for detecting the onset of a saccadic movement were acceleration of  $8000^\circ/s^2$ , velocity of  $30^\circ/s$  and distance of  $.5^\circ$  of visual angle. Movement offset was detected when velocity fell below  $30^\circ/s$  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). Average error in the computation of gaze position was less than  $.5^\circ$ . A 9-point calibration procedure was performed at the beginning of the experiment, followed by a 9-point calibration accuracy test. After successful calibration, participants began the hour long eye-tracking task; however, calibration was repeated if any point was in error by more than 11 or if the average error for all points was greater than  $.5^\circ$ , following standard procedures for quality data utilizing eye-trackers.

A cross was initially presented at the center of the screen, on which participants were required to fixate and press the spacebar to initiate each trial. Following a 500 ms delay, a pre-tested photograph of a woman previously rated as high, average, or low in attractiveness, warmth, and competence was presented for 3000 ms (see

above for pre-testing information). Participants completed both the personality and appearance focus conditions (counterbalanced), in which 80 photographs were presented in random order across participants two separate times, allowing participants to view each image while evaluating personality or appearance. Participants were told they would “view some images of people;” focus was manipulated by asking participants to rate the appearance (appearance focus condition) or the personality (personality focus condition) of the pictured female target on a scale ranging from 1 (*not at all positive*) to 7 (*extremely positive*). After completing each of the eye-tracking tasks, participants were again breathalyzed and completed the same perceived intoxication measure used immediately after consumption before completing additional measures unrelated to the current hypotheses (reported in Haikalis et al. 2017, manuscript in preparation and Franz et al. 2017). Participants were thoroughly debriefed. Due to the nature of the tasks and the study title, many participants assumed the study examined alcohol and perceptions of other-sex individuals, but no participants mentioned objectification and or gazing-related behaviors. At this point, participants were either immediately released (placebo condition) or were provided snacks and movies until their BrAC reached at or below .03% (alcohol condition).

## Results

### ***Manipulation Checks***

To determine whether our manipulations of target characteristics were successful, we conducted a series of repeated measures ANOVAs with three levels of the attribute (high, average, low) for either the appearance or personality ratings. Mauchly’s test indicated that the assumption of sphericity had been violated for both the attractiveness condition,  $\chi^2(2) = 25.55, p < .001$ , and warmth condition,  $\chi^2(2) = 20.03, p < .001$ ; thus degrees of freedom for these conditions were corrected using the Greenhouse-Geisser estimates of sphericity ( $\epsilon = .70$  and  $.73$  respectively). Results revealed that our manipulations of target characteristics were successful (see Table 1 for means and standard deviations of ratings). When participants were in the appearance focus condition, the appearance of highly attractive women was rated more positively, followed by average attractive women, and finally less attractive women,  $F(1.40, 60.17) = 108.82, p < .001, \eta p^2 = .72$ . Additionally, when participants were in the personality focus condition, the personality of women high in perceived warmth was rated more positively, followed by women average in perceived warmth, and finally women low in perceived warmth,  $F(1.46, 64.13) = 86.19, p < .001, \eta p^2 = .66$ . Lastly, when participants were in the personality focus condition, the personality of women high or average in perceived competence was deemed more positive than women low in perceived competence,  $F(2, 88) = 46.26, p < .001, \eta p^2 = .51$ . Overall, these effects mostly support findings from the preliminary study including pre-testing used to distinguish women high, average, or low in attractiveness, perceived warmth, and perceived competence.

To ensure that our alcohol manipulation was successful, BrAC levels measured after the absorption period and eye-tracking task were submitted to independent

samples  $t$ -tests. Our manipulation was successful,  $t(46) = -12.94, p < .001, d = 3.79$ ; participants in the alcohol condition ( $M = .08, SD = .02$ ) had a higher BrAC immediately after the absorption period than participants in the placebo condition ( $M = .02, SD = .01$ ); although participants in the placebo condition had a discernible BrAC, this dropped to .00 by the completion of the eye-tracking task. Participants in the alcohol condition ( $M = .08, SD = .01$ ) also had a higher BrAC after completing the eye-tracking task than participants in the placebo condition ( $M = .00, SD = .00$ ),  $t(46) = 26.95, p < .001, d = 11.31$ . Furthermore, participants in the alcohol condition reported feeling more intoxicated than participants in the placebo condition immediately after consumption ( $M_{alcohol} = 4.04, SD = 2.16; M_{placebo} = 1.08, SD = 1.14$ ),  $t(45) = -5.91, p < .001, d = 1.71$ , and after the eye-tracking task ( $M_{alcohol} = 4.29, SD = 2.22; M_{placebo} = .67, SD = 1.37$ ),  $t(46) = -6.81, p < .001, d = 1.96$ . These differences are consistent with prior alcohol administration research (e.g., Giancola et al. 2009a, b; Watkins et al. 2015).

### **Hypotheses Testing**

To test hypotheses, dwell times were submitted to a 2 (focus: appearance, personality)  $\times$  3 (body part: face, chest, waist)  $\times$  3 (perceived attribute level: high, average, low)  $\times$  2 (alcohol condition: placebo, alcohol) mixed model Analyses of Variance (ANOVA), with alcohol condition as the between-participants variable. Mauchly's test indicated that the assumption of sphericity had been violated for body part,  $\chi^2(2) = 74.31, p < .001$ , and therefore degrees of freedom for the effects including body part were corrected using Greenhouse-Geisser estimates of sphericity ( $\epsilon = .54$ ). Dwell times are reported below in raw milliseconds (ms).

#### ***Hypothesis 1: The Effect of Focus on Objectification Perpetration***

We expected that an appearance focus would increase objectifying gazes. The hypothesized focus  $\times$  body part interaction emerged,  $F(1.08, 45.73) = 48.08, p < .001, \eta^2 = .53$ . Consistent with Hypothesis 1, dwell time on faces was always greatest, yet an appearance focus resulted in shorter dwell times on faces and longer dwell times on chests and waists relative to a personality focus,  $ps < .001$ ; taking an appearance focus increased objectifying gazes relative to a personality focus (see Table 2a for means and standard deviations of dwell times).

#### ***Hypothesis 2: The Effect of Alcohol on Objectification Perpetration***

We also expected that alcohol would increase objectifying gazes. The hypothesized alcohol condition  $\times$  body part interaction emerged,  $F(1.09, 45.73) = 4.46, p = .04, \eta^2 = .10$ . In support of Hypothesis 2, intoxicated participants spent less time looking at the faces of targets compared to sober participants,  $p = .03$ . Yet, inconsistent with Hypothesis 2, there was no difference in the dwell time on chests and waists between intoxicated and sober participants ( $ps > .21-.24$ ; see Table 2b for means and standard deviations of dwell times). In partial support of Hypothesis 2, intoxicated men, compared with sober men, were more likely to engage in objectifying gazes, via less time spent on women's faces.

#### ***Hypothesis 3: The Effect of Target Attributes on Objectification Perpetration***

We hypothesized that attractiveness would increase, whereas humanness would decrease, objectifying gazes. To test this hypothesis, dwell times were submitted to separate 3 attribute (high, average, low)  $\times$  2 focus (appearance, personality)  $\times$  3 body part (face, chest, waist)  $\times$  2 alcohol condition (placebo, alcohol) mixed model ANOVAs with alcohol condition serving as a between-participants variable. Means and standard deviations can be found in Table 2c.

First, the attractive attribute  $\times$  body part interaction emerged as hypothesized,  $F(2.86, 120.18) = 13.66, p < .001, \eta^2 = .25$ . Specifically, participants dwelled for shorter durations on the faces but for longer durations on the chests and waists of more attractive women than average attractive women,  $ps < .001$ . Interestingly, participants dwelled on the faces, chests, and waists of less attractive women for similar durations as they dwelled on the faces, chests, and waists of more attractive women,  $ps > .08-.57$ ; whereas participants dwelled on the faces of less attractive women for shorter durations, participants dwelled on the chests and waists of less attractive women for longer durations than average attractive women,  $ps < .001$ . In summary, Hypothesis 3 was supported; the attractiveness of women increased men's objectifying gazes.

The hypothesized warmth attribute  $\times$  body part interaction,  $F(2.59, 108.87) = 10.86, p < .001, \eta^2 = .21$ , also emerged. Consistent with hypotheses, participants dwelled for longer durations on the faces, and shorter durations on the chests, of women high in perceived warmth relative to women average in perceived warmth,  $ps < .001$ . Participants dwelled on the faces and chests of women low in perceived warmth for similar durations as women high in perceived warmth,  $ps > .37-.53$ ; participants dwelled on faces of women low in perceived warmth for longer durations, and chests of women low in perceived warmth for shorter durations, than women average in perceived warmth. For dwell time on waists, a different pattern emerged; although there was no difference between dwell time on waists of women high and average in perceived warmth,  $p = .59$ , participants dwelled on the waists of women low in perceived warmth for longer durations than women high and average in perceived warmth,  $ps = .03$ . Or in other words, in support of Hypothesis 3, the humanizing attribute of warmth decreased men's objectifying gazes.

Finally, the hypothesized competence attribute  $\times$  body part interaction emerged,  $F(3.13, 131.51) = 7.50, p < .001, \eta^2 = .15$ . Participants dwelled for longer durations on the faces of women high and average in perceived competence relative to women low in perceived competence ( $p_{\text{high vs. low}} = .003, p_{\text{average vs. low}} = .048$ ), and participants dwelled for shorter durations on the chests of women high in perceived competence relative to women average and low in perceived competence ( $p_{\text{average vs. high}} < .001, p_{\text{low vs. high}} = .001$ ). There were no differences in dwell time on the waists of women high, average, or low in perceived competence,  $ps > .07-.89$ . In further support of Hypothesis 3, the humanizing attribute of competence decreased men's objectifying gazes.

#### ***Hypothesis 4: Alcohol Moderating the Effect of Target Attributes on Objectification Perpetration***

Our final hypothesis explored the possibility that alcohol moderates the effect of target attributes on objectifying gazes. In line with alcohol myopia theory, we



predicted that intoxication would increase attention directed at more salient cues (sexualized body parts) and decrease attention from less salient humanizing cues (faces). Alcohol did not qualify the attractive attribute  $\times$  body part interaction,  $F(2.86, 120.18) = 1.41, p = .25, \eta^2 = .03$ . Inconsistent with Hypothesis 4, this finding means that alcohol did not moderate the effect of attractiveness on men's objectifying gazes.

The warmth attribute  $\times$  body part  $\times$  alcohol condition interaction was significant,  $F(2.59, 108.87) = 2.83, p = .049, \eta^2 = .06$ . (All means and standard deviations from the attribute  $\times$  body part  $\times$  alcohol condition interaction can be found in Table 3.) The same pattern of effects that emerged for the warmth  $\times$  body part interaction also emerged for this three-way interaction; participants in the placebo condition dwelled for longer durations on faces and waists, but shorter durations on the chests of women high and low in perceived warmth compared to women average in perceived warmth ( $ps \leq .001$ ). However, participants in the alcohol condition dwelled for shorter durations on targets' faces and dwelled for longer durations on targets' chests and waists compared to participants in the placebo condition ( $ps \leq .001$ ). And thus, dwell time on women's bodies was greatest when intoxicated participants viewed women low and average in perceived warmth. In support of Hypothesis 4, alcohol did significantly moderate the effect of warmth on men's objectifying gazes.

The competence attribute  $\times$  body part  $\times$  alcohol condition interaction also emerged,  $F(3.13, 131.51) = 2.73, p = .04, \eta^2 = .06$ . Although dwell times on faces, chests, and waists from participants in the placebo condition did not differ based on perceived target competence level,  $ps > .14-.93$ , a different pattern emerged for participants in the alcohol condition. Specifically, participants who were intoxicated spent shorter durations on faces of low perceived competence women compared to average and high perceived competence women ( $p_{\text{low vs. average}} = .03, p_{\text{low vs. high}} = .001$ ), but longer durations on the chests of low compared to average or high perceived competence women ( $ps \leq .001$ ) as well as waists of low and average compared to high perceived competence women ( $p_{\text{low vs. high}} = .007, p_{\text{average vs. high}} = .03$ ). The combination of less perceived competence and intoxication led to the greatest likelihood of objectifying gazes. In conclusion, further support was found of Hypothesis 4; alcohol moderated the effect of competence on men's objectifying gazes.

## Discussion

Despite the adverse consequences of the objectifying gaze of women for both perceivers (e.g., dehumanization, violence, and discrimination) and recipients (e.g., self-objectification, mental health consequences), little work has examined the origins of men's objectifying gaze behaviors. The findings from the present initial study with U.S. college students extend past investigations and suggest that focus on appearance, alcohol intoxication, as well as attractiveness, warmth, and competence perceptions all influence men's sexual objectification of women. Further, male alcohol intoxication and perceived warmth and competence interacted to differentially predict objectifying gazes toward women. In the

following we summarize our findings, consider the limitations and suggest steps for future research, and discuss the practical implications.

Our findings supported Hypothesis 1; focus on appearance triggered objectifying gazes via less time spent on the faces and more time spent on the sexual aspects of women, namely their chests and waists. These findings replicate previous work (Gervais et al. 2013) suggesting that although the general pattern of person perception involves a greater focus on the face than on the body, the time spent on the face differs depending on the objectifying focus of the perceiver. Although people are not instructed in everyday life to focus on targets' personality or appearance, there may be situational influences that prompt men to focus more on women's appearances (e.g., interest in a one-night stand) than on women's personalities, ultimately increasing likelihood of objectifying gazes. Future work should examine situational influences that may naturally promote appearance versus personality focus within first impression situations.

In partial support of Hypothesis 2, intoxicated men were more likely to engage in objectifying gazes than were sober men. Intoxicated participants spent significantly less time gazing at women's faces. Although in the expected direction, the differences between alcohol and placebo groups in time spent on women's chests as well as waists were not statistically significant. From the perspective of alcohol myopia theory, difficult-to-process stimuli such as faces (which convey emotions, thoughts, intentions) may overwhelm attentional capacity for individuals in a state of intoxication, leading to less time spent on these humanizing attributes. By contrast, alcohol myopia theory also predicts that intoxicated men should display increased perceptual bias toward more provocative stimuli, in this case women's sexualized body parts. A possible explanation for intoxicated men not spending greater time on women's sexual body parts is that, although women in the photos were dressed in "going out" attire, few were wearing outfits that would be considered especially attention grabbing (e.g., that were extremely form-fitting or revealing). It is also important to note that perceived female warmth and competence further qualified the alcohol by body part interaction, which may also help explain the lack of lower order effects. Regardless, more research is needed to test our supposition that greater salience of women's sexual attributes would be associated with increased objectification by intoxicated men.

Supporting Hypothesis 3, perceived attractiveness, warmth, and competence influenced men's objectifying gazes. Consistent with previous research (Gervais et al. 2013; Gueguen 2007; Zelazniewicz and Pawlowski 2011), women high in attractiveness were objectified to a greater degree than were women average in attractiveness. In line with previous work on the relative dehumanization of women denied warmth and competence (Fiske 2013; Haslam 2006; Haslam et al. 2005), women high in perceived warmth and competence were objectified to a lesser degree than were women average or low in perceived warmth and competence. Prior work shows that sexy women are thought to be average on competence and below average on warmth in general (Fiske et al. 2002, see Fig. 1), but we found that individual images of women in "going out attire" represented the entire continuum of competence and warmth, providing a more nuanced picture than prior research. Although participants rated the women in high and average perceived competence groups equivalently in terms of their personality, participants dwelled for shorter durations on the chests of women high in

perceived competence relative to women average and low in perceived competence. This finding implies that although there may be a curve of diminishing returns of the extent that greater competence results in more positive personality perceptions, greater competence does significantly decrease objectifying gazes directed at women's chests. Interestingly, men were also more likely to objectify women who were low in attractiveness relative to women who were average in attractiveness. Although we are unsure of men's underlying motivations behind these objectifying gazes, it is possible that men perceive objectification directed at women outside conventional norms of attractiveness as more acceptable. The sum of these results support the notion that being perceived as high in humanizing attributes (i.e., warmth, competence) or being average in attractiveness provides a buffer from sexual objectification (Bernard et al. 2015).

Finally, in partial support of Hypothesis 4, alcohol further moderated the effects of perceived warmth and competence, but not attractiveness, on objectifying gazes. Objectifying gazes were greatest among intoxicated men viewing photographs of women who they perceived to be lower in warmth and competence, suggesting that alcohol may further disinhibit the already increased objectifying gazes toward women who are seen to be lower in humanness. This finding provides support for the belief that the responsibility for choosing whether to objectify lies in the hands of the perceiver rather than the recipient, because it indicates that women's humanizing attributes only relate to objectifying gazes among some men, namely those who are intoxicated. Future work should extend these findings to examine the attitudes and beliefs (e.g., rape myths, hostile sexism) that may also interact with recipient characteristics to result in more sexually objectifying behaviors.

### ***Limitations and Future Research Directions***

Although the present study provides valuable contributions, it is not without limitations. Although the hypotheses that were generated a priori based on theory and published research were mostly supported, the small sample size suggests this work stands more as a pilot study of the relation between alcohol use and objectification perpetration. We included several within-participants variables because such variables typically allow for larger effect sizes and within-participants effects may be detectable even with a lower sample size. However, the results should be replicated in future studies with larger samples sizes.

Another limitation regarding our sample is the relatively uniform, primarily White, young sample of U.S. college students. Examining sexual objectification in larger and more diverse samples is a critical next step before generalizing the present findings to other populations. People may be attracted to and attend to the bodies of women in various ways for many reasons. For example, if a heterosexual man is looking for a mate, women with lower waist-to-hip ratios may be regarded as more attractive due to the evolutionary significance associated with these body parts (Marlowe and Westman 2001; Singh 1993), whereas if he has consumed large amounts of media, larger breasts may be regarded as more attractive due to socialization processes (Kenrick and Gutierrez 1980). Future research is needed to address these and related questions for racial and ethnic

minorities, sexual minorities, older people, non-collegiate individuals, and across cultures.

There were also some limitations of using a placebo control condition instead of a non-placebo control condition in which participants believed they were drinking a non-alcoholic beverage. Our use of a placebo control was purposeful because a placebo control is considered the gold standard in alcohol administration research with respect to examining the physiological, rather than expectancy, effects of alcohol (Testa et al. 2006). Yet, the inclusion of a placebo control necessitated a difference in time spent between alcohol conditions after alcohol consumption and prior to the eye-tracking; participants in the alcohol condition were given a 15–30 min absorption period, whereas participants in the placebo condition began the task immediately after consumption. Although the absorption period for participants in the alcohol condition introduces a potential confound due to differences in timing, we have no reason to believe that this inconsistency could plausibly explain the differences in objectifying gazes between the alcohol and placebo control conditions. Indeed, keeping the timing uniform may have undermined the manipulation; if participants in the alcohol condition had no absorption period, they likely would not have been intoxicated prior to the objectifying gaze measure and if participants in the placebo control condition were given the 15–30 min absorption period, it would quickly have become apparent they did not consume alcohol (Bradlyn and Young 1983; Martin et al. 1990; Martin and Sayette 1993). Additionally, due to a small amount of alcohol in the placebo beverages used to enhance believability, participants in that condition had a discernible BrAC prior to beginning the eye-tracking task. Despite the presence of alcohol cues, including the smell and taste, participants in the placebo condition reported less perceived intoxication than participants in the alcohol condition. Although the BrAC of participants in the control condition was .00 after completing the eye-tracking task, there is a possibility that their responding was impacted by the trivial amount of alcohol they consumed; if we included an aware sober control condition in which even this negligible amount of alcohol was eliminated, we would expect the differences between the alcohol and control conditions to be even more pronounced. In sum, like other work in this area (Testa et al. 2006), it is difficult to completely disentangle the role of physiology relative to expectations in the present study, and future research would benefit from including multiple different control conditions (e.g., placebo control, aware sober control).

It should also be noted that the controlled laboratory design— complete with randomization to drinking condition and eye-tracking measurement during a controlled counterbalanced task—prioritized internal validity over external or ecological validity. Participants viewed photographs rather than engaging in live interactions with women, but ecological validity was preserved to the highest possible extent by using photographs of actual college women who wore their own outfits. Further, although eye movements during the laboratory eye-tracking task have been established as a manifestation of sexual objectification (Gervais et al. 2013), it is possible that some men may engage in more, less, or different objectifying behaviors in the real world than they would in the laboratory setting. This may be especially true given that we did not assess dwell times directed at female targets' other sexualized body parts, that are commonly gazed upon, such as legs and buttocks (Lewis et al. 2016). Together, these ideas suggest that our

initial study could represent a more liberal or conservative test of our hypotheses; men may be less likely to objectify women during actual interactions, but may be more likely to objectify women when they can gaze at certain body parts (e.g., buttocks) unbeknownst to women. To examine whether intoxication would have the same influence on sexual objectification in real life settings where multiple factors are at play, more ecologically valid examinations, such as virtual reality or actual interactions with women, may be beneficial.

Finally, additional manifestations of objectification and humanization should be examined in future research. Although the objectifying gaze has been theorized as looking more at women's bodies and less at their faces (Fredrickson and Roberts 1997; Loughnan et al. 2010; Mulvey 1975), it is also possible that aspects of women's faces (e.g., lips), at times, may also be objectified. Increased attention to a woman's lips and decreased attention to her eyes, for example, may be dehumanizing in the minds of perceivers and experienced as similarly dehumanizing among recipients. Eye-tracking while people view female faces could be a useful methodological approach to detecting these subtler manifestations of objectifying gazes in future research. Likewise, although warmth and competence have been regarded as core aspects of humanness (Fiske 2013; Harris and Fiske 2006, 2009; Haslam 2006), these are but two of its defining constructs, and thus future research would benefit from investigating the effect of additional humanizing attributes on objectification perpetration.

### ***Practice Implications***

The present findings may have practical implications for efforts to address men's objectifying perceptions of women. Although a plethora of research has revealed a link between alcohol use and sexual assault on college campuses, the current study sheds light on precursors to men's perpetration of objectifying gazes—behaviors that may be a gateway to more serious forms of sexual aggression (Gervais et al. 2014). It is possible, for example, that increased sexual objectification, brought on by myopia, may be an underlying process that contributes to outcomes such as men's misperceptions of women's sexual interest and related sexual aggression (Abbey et al. 2000). If men who are under the influence of alcohol pay less attention to the humanizing attributes of women (e.g., through decreased focus on facial cues), they may be less able to gauge women's sexual interests accurately (Farris et al. 2008). Furthermore, for women who are targets of objectification, these experiences may potentially act as a precursor to behavioral confirmation in which women begin to self-objectify (Kozee et al. 2007), leading to safety concerns (Fairchild and Rudman 2008), negative affect, reduced flow, increased body monitoring, and shame (Calogero et al. 2011; Noll and Fredrickson 1998; Tiggemann and Williams 2012). Within clinical settings, potential objectification resulting from myopia should be considered and addressed. For instance, some have suggested that, just as the myopic influences of alcohol may facilitate aggression when left unchecked, if harnessed and redirected through intervention, these processes may have the counterintuitive effect of decreasing the risk of sexual assault (Giancola et al. 2009a, b). One means of accomplishing this is through mindfulness-based interventions, which could be used to boost self-reflection and outcome evaluation in ways that counteract myopia and reduce

men's objectification of women. Supporting this possibility are correlational findings that heavy drinking is associated with sexual aggression only among men low in mindfulness (Gallagher et al. 2010).

Although the present study examined the influence of target characteristics on objectification, of course, no characteristic gleaned from observation alone could possibly be considered a solicitation of sexual objectification. However, it is possible some men may hold problematic beliefs that lead them to objectify women based on superficial evaluations of their attractiveness, warmth, and competence. It is certainly not the burden of women to change their outward appearance to reduce objectification by men. However, the present findings help to advance our understanding of the objectifying gaze and may help to challenge specific maladaptive beliefs held by some men that objectifying gazes directed toward certain women (i.e., those outside the norms of attractiveness and not high in superficially perceived competence and warmth) are acceptable. Although the present findings were obtained in a laboratory setting, it may be useful to develop strategies for addressing dehumanized perceptions of women based on superficial aspects of appearance.

## Conclusions

As a whole, the present findings extend our understanding of factors that lead men to sexually objectify women. Although the empirical investigation of the alcohol-sexual objectification link is in its infancy, it seems that many people may already be aware of the objectification that occurs while intoxicated, as exemplified by the lyrics in Jamie Foxx's hit song *Blame It (on the Alcohol)*. It is clear that many factors either promote (or inhibit) objectifying gazes, including factors that increase focus on appearance (or personality), acute alcohol intoxication, and superficially evaluated target characteristics (i.e., attractiveness, warmth, or competence). Further, those aiming to reduce the occurrence of sexual objectification could target alcohol use or cue people to focus on evaluating personalities when interacting with women. Sexual objectification has also been linked to perpetrating more severe acts of sexual violence (Gervais et al. 2014). Therefore, understanding the etiology of sexual objectification may serve a crucial role in informing primary prevention programs to reduce the continuum of sexual violence that women disproportionately experience.

**Table 1.** Means and standard deviations of appearance and personality ratings by target characteristic condition

	High <i>M (SD)</i>	Average <i>M (SD)</i>	Low <i>M (SD)</i>
Appearance focus			
Attractiveness	5.11 (.10) <sub>a</sub>	4.50 (.11) <sub>b</sub>	3.92 (.14) <sub>c</sub>
Personality focus			
Warmth	5.13 (.10) <sub>a</sub>	4.93 (.10) <sub>b</sub>	4.54 (.11) <sub>c</sub>
Competence	4.96 (.10) <sub>a</sub>	5.01 (.10) <sub>a</sub>	4.64 (.11) <sub>b</sub>

Means within each row with different subscripts are significantly different,  $ps < .001$

**Table 2.** Means and standard deviations for the significant two-way interactions

	Face <i>M (SD)</i>	Chest <i>M (SD)</i>	Waist <i>M (SD)</i>
<b>(a) Focus x body part interaction</b>			
Appearance	1435.13 (82.39) <sub>a</sub>	397.69 (30.86) <sub>c</sub>	490.75 (28.48) <sub>e</sub>
Personality	1913.12 (75.49) <sub>b</sub>	264.63 (21.42) <sub>d</sub>	378.90 (26.39) <sub>f</sub>
<b>(b) Alcohol condition x body part interaction</b>			
Alcohol	1510.46 (103.79) <sub>a</sub>	360.67 (35.08) <sub>c</sub>	465.79 (35.00) <sub>d</sub>
Placebo	1837.79 (99.17) <sub>b</sub>	301.65 (33.52) <sub>c</sub>	403.86 (33.45) <sub>d</sub>
<b>(c) Attribute x body part interactions</b>			
Attractiveness			
High	1658.04 (73.18) <sub>a</sub>	348.38 (25.69) <sub>c</sub>	435.00 (25.66) <sub>e</sub>
Average	1734.43 (72.68) <sub>b</sub>	291.83 (26.79) <sub>d</sub>	415.89 (22.57) <sub>f</sub>
Low	1632.70 (72.80) <sub>a</sub>	341.41 (22.94) <sub>c</sub>	454.46 (26.61) <sub>e</sub>
Warmth			
High	1700.12 (72.01) <sub>a</sub>	308.80 (24.72) <sub>c</sub>	429.62 (24.02) <sub>e</sub>
Average	1636.16 (75.28) <sub>b</sub>	369.04 (26.71) <sub>d</sub>	425.00 (25.05) <sub>e</sub>
Low	1689.65 (70.06) <sub>a</sub>	316.90 (23.17) <sub>c</sub>	446.70 (25.02) <sub>f</sub>
Competence			
High	1704.42 (72.72) <sub>a</sub>	312.67 (25.12) <sub>c</sub>	425.17 (25.13) <sub>e</sub>
Average	1673.68 (71.58) <sub>a</sub>	314.53 (24.11) <sub>d</sub>	439.12 (25.58) <sub>e</sub>
Low	1643.13 (73.12) <sub>b</sub>	365.73 (26.22) <sub>d</sub>	440.86 (24.10) <sub>e</sub>

For each of the three interaction, means within columns and within rows different subscripts signify significant differences,  $ps < .05$ . All values are milliseconds and high scores indicate more attention.

**Table 3.** Attribute X alcohol condition X body part interaction

		Face	Chest	Waist
Warmth				
High	Alcohol	1554.36 (104.12) <sub>a</sub>	335.95 (35.74) <sub>e</sub>	450.41 (34.73) <sub>i</sub>
	Placebo	1845.88 (99.49) <sub>b</sub>	281.64 (34.15) <sub>f</sub>	408.83 (33.18) <sub>j</sub>
Average	Alcohol	1483.76 (108.86) <sub>c</sub>	400.48 (38.62) <sub>g</sub>	452.83 (36.28) <sub>i</sub>
	Placebo	1788.56 (104.02) <sub>d</sub>	337.59 (36.91) <sub>h</sub>	397.17 (34.62) <sub>j</sub>
Low	Alcohol	1500.34 (101.31) <sub>c</sub>	347.86 (33.50) <sub>e</sub>	487.76 (36.17) <sub>k</sub>
	Placebo	1878.97 (96.81) <sub>b</sub>	285.95 (32.02) <sub>f</sub>	405.60 (34.56) <sub>j</sub>
Competence				
High	Alcohol	1559.24 (105.15) <sub>a</sub>	344.52 (36.32) <sub>e</sub>	443.81 (36.33) <sub>i</sub>
	Placebo	1849.59 (100.48) <sub>b</sub>	280.83 (34.70) <sub>f</sub>	406.53 (34.72) <sub>j</sub>
Average	Alcohol	1514.40 (103.50) <sub>c</sub>	331.11 (34.86) <sub>e</sub>	476.60 (36.99) <sub>k</sub>
	Placebo	1832.95 (98.90) <sub>b</sub>	297.96 (33.31) <sub>fg</sub>	401.64 (35.35) <sub>j</sub>
Low	Alcohol	1456.23 (105.73) <sub>d</sub>	404.79 (37.91) <sub>h</sub>	478.59 (34.85) <sub>k</sub>
	Placebo	1830.03 (101.03) <sub>b</sub>	326.67 (36.23) <sub>h</sub>	403.13 (33.30) <sub>j</sub>

Means within columns (i.e., comparing faces, chests, and waists) and within rows (i.e., comparing alcohol condition, high and low, and level of target attribute, high, average, and low) with different subscripts are significantly different,  $ps < .05$ . All values are milliseconds and higher scores indicate more attention

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*Figure 1s.* Example photographed woman used for eye-tracking stimuli (faces were not blurred in the experiment, but are blurred here to maintain confidentiality).