Sex Roles
https://doi.org/10.1007/s11199-018-0958-9

ORIGINAL ARTICLE

She Looks like She'd Be an Animal in Bed: Dehumanization of Drinking Women in Social Contexts

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Abstract

The purpose of the present research was to examine the perceptions of women who drink in social contexts through the lens of dehumanization (Haslam 2006). Across three experiments, we manipulated the presence of alcohol by depicting a woman at a bar with a bottle of beer or a bottle of water and measured dehumanization. As hypothesized, women were dehumanized more in the alcohol condition than in the water condition by men (Experiments 1–3) and women (Experiments 2 and 3). Notably, the presence of alcohol compared to water had no impact on dehumanization of men (Experiment 2). Also, as hypothesized, perceived intoxication emerged as a significant mediator of the link between alcohol condition and dehumanization in Experiments 1 and 2, and alcohol quantity predicted greater dehumanization in Experiment 3. Extending the present work to prior work in this area, Experiment 3 also examined the links among alcohol, perceived sexual availability, and dehumanization, revealing that perceived sexual availability mediated the link between alcohol and dehumanization. Implications for theories of dehumanization, alcohol, and social perception as well as practical implications of these findings are discussed.

Keywords Alcohol · Intoxication · Dehumanization · Sex · Gender

Imagine it is a Friday night and you are at a bar waiting for your friends to arrive. Across the bar, you see a young woman holding a bottle of beer. Meanwhile at the table next to yours, you overhear one man point this woman out to his friend and make a comment that he thinks she would be a "real animal in the bedroom." Although it might seem that comments like these are innocuous, and may even invoke a chuckle from the man's friend, a large literature suggests that the effects of alcohol on social perception are no laughing matter. In line with this suggestion, the presence of alcohol causes negative social perceptions and adverse treatment of drinking individuals compared to their sober counterparts. Importantly, people express more disapproval toward intoxicated women relative to men, presumably because heavy drinking confirms gender stereotypes about men regarding appropriately masculine behavior (Capraro 2000), whereas similar drinking behavior violates gender stereotypes about women regarding appropriately feminine behaviors (Gomberg 1993; Landrine et al. 1988; Ricciardelli et al. 2001).

Beyond perceptions, alcohol use also significantly increases risk for sexual victimization for women to a greater extent than for men (Abbey 2011). A vast literature examining the effect of alcohol use on sexual violence has identified links between women's alcohol use and men's misperceptions of sexual interest (Abbey et al. 2000; Beckman and Ackerman 1995), sexual availability (Abbey and Harnish 1995; Corcoran and Thomas 1991), and sexual responsiveness (George et al. 1995). One potential reason for increased sexual victimization in drinking women is that people perceive drinking women as less sexually inhibited and, as a result, less human. The purpose of the present research was to extend and elaborate this prior research by examining whether the presence of alcohol fundamentally changes social perceptions

Electronic supplementary material The online version of this article (https://doi.org/10.1007/s11199-018-0958-9) contains supplementary material, which is available to authorized users.

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Published online: 06 September 2018

of young White women by causing people to see them as less human. Although our focus was primarily on White women, we also included a study examining the impact of alcohol presence on dehumanization of White men to disentangle the role of alcohol and gender. Toward that end, we integrate research on alcohol, gender, and social perception with Haslam's (2006) conceptualization of dehumanization to derive testable hypotheses.

Sexual Perceptions of Drinking Women

Three decades of research supports the ideas that drinking women in social settings are perceived more sexually than their counterparts who abstain from alcohol (Garcia and Kushnier 1987; George et al. 1995, 1997) and that men tend to show this bias toward drinking women to a greater degree than do women (Crowe and George 1989; George et al. 1988). Relative to women, for example, men tend to perceive more sexual intent and sexual availability in drinking than non-drinking women (Abbey et al. 1996; Lindgren et al. 2008; for review; Parks and Scheidt 2000).

Researchers have suggested that stereotypes—promoted through media and other sources—create expectancies that alcohol use and promiscuity in women often go hand-in-hand (Blume 1991; Woodruff 1996). Parks and Scheidt (2000), for example, found that male participants formed impressions of women as being more sexually promiscuous when wearing provocative clothing and consuming greater amounts of alcohol. Consistent with the idea that stereotypes about women, rather than women's actual behaviors, cause these perceptions, Koukounas et al. (2015) found that the mere presence of alcohol caused men to rate women in male-female dyads as higher in sexual intent. People who endorse sex-related alcohol expectancies (e.g., the idea that alcohol increases sexual feelings) are particularly likely to demonstrate links between alcohol and sexuality. To illustrate, Friedman et al. (2005) primed men with alcohol or control words and the men then rated photographs of women on attractiveness and intelligence. For men who believed that alcohol enhances sexual desires (vs. those who did not), attractiveness ratings of the woman increased when they were primed with alcohol (vs. control) words, whereas ratings of intelligence were unaffected. Although it seems that stereotypes and related expectancies regarding alcohol, sexuality, and gender increase the likelihood that women will be perceived in ways that can promote more focus on their sexual attributes, we offer a complementary suggestion that alcohol may influence negative perceptions of drinking women in terms of their perceived humanity by influencing perceptions of sexual availability.

Dehumanization

The process through which we deny others full humanness has long been a topic of interest for psychological researchers (Bandura 1990; Bar-Tal 1990; Kelman 1973; Opotow 1990). Several scholars have focused on critical antecedents of dehumanization including conflict (Struch and Schwarz 1989), disconnection (Opotow 1990), instrumentalization (Kelman 1973), and threat (Bar-Tal 1990). Likewise, other researchers have focused on the troubling consequences of dehumanization. Bandura et al. (1975), for example, linked dehumanization to aggression, suggesting that dehumanization allows people to avoid self-censure for harming others; victims are regarded as sub-human, undeserving of the dignifying qualities that are typically ascribed to human beings. More recently, dehumanization has been linked to greater punishment and less rehabilitative efforts for criminals (Bastian et al. 2013a; Viki et al. 2012), more willingness to engage in torture (Viki et al. 2013), less sensitivity and concern for victims of police brutality (Goff et al. 2008), and increased tolerance of sexual assault (Loughnan et al. 2013).

Haslam's (2006) conceptualization of dehumanization represents a major advance in our understanding of who is seen as less or not completely human as well as the social cognitive processes underlying this phenomenon. Informed by classic research in the area of dehumanization, Haslam (2006; see also Leyens et al., 2003) proposed that dehumanization not only occurs in extreme forms restricted to intergroup conflict and blatant negativity (Bandura 1999; Leyens et al. 2003; Kelman 1976; Opotow 1990), but also emerges in everyday social interactions when people deny others human attributes. Haslam has suggested that people are dehumanized when they are denied human uniqueness (i.e., likened to animals) and human nature (i.e., liked to machines, see also Bain et al. 2009; Haslam et al. 2005, 2008; Loughnan and Haslam 2007; see Haslam et al. 2013 for review). Whereas animalistic and mechanistic dehumanization sometimes have distinct predictors and outcomes, they often go hand-in-hand, and full humanity is denied to any target perceived to be lacking human nature and/or human uniqueness attributes (Haslam et al. 2013). Because ours was the first known study to examine the role between women's alcohol intoxication, we examined dehumanization as a general construct.

Dehumanizing Drinking Women

Integrating dehumanization theory (Haslam 2006) with research on gender and alcohol consumption, our central hypothesis is that drinking women will be dehumanized to a greater degree than non-drinking women. Although this linkage has not been explicitly tested, research is consistent with this notion. Generally speaking, research shows that people

who abuse substances (e.g., drug addicts) are dehumanized compared to non-abusers (Cameron et al. 2016). Abusers are perceived with less empathy (McKenna et al. 2012) and eliciting less medial pre-frontal cortical activation (an area of the brain necessary for human cognition, Harris and Fiske 2006). To consider the possibility that this denial of humanness extends to more common substance use, we examined the effect of alcohol on dehumanization.

Dehumanized individuals are perceived as lacking self-control and morality, as well as driven more by motives, appetites, and instincts. Alcohol, especially in large quantities, is expected to lead to disinhibition (Anderson et al. 2003; McCarthy et al. 2001; Steele and Josephs 1990), which may lead perceivers to attribute less cognitive sophistication and rationality to drinking individuals. Alcohol disinhibition is particularly common in sexual situations (Dermen and Cooper 1994). Drinking men and women are perceived as behaving in more sexually disinhibited manners than their sober counterparts are (Abbey et al. 2000); however, drinking women are more likely than are drinking men to be described as sexually available and immoral, and thus also perceived as "acceptable" targets of sexual aggression (Kanin 1984; Scully 1991). Given the link between women's drinking behaviors and ascriptions of disinhibition and immorality, we reasoned that drinking women would be perceived as less human relative to non-drinking women as well as drinking and non-drinking men.

We expected perceived intoxication would be an important mechanism linking alcohol and dehumanization of women. Recent research has revealed that whether or not individuals are ascribed agency plays an important role in dehumanization (Formanowicz et al. 2018). To be agentic is to be able to intentionally bring about change in one's environment—requiring intentions, forethought, self-reactiveness, and self-reflectiveness (Bandura 2006). Alcohol consumption may influence perceptions of agency, with greater perceived intoxication causing decreased perceptions of agency. Although self-perceptions regarding feelings of intentionality and control are relatively stable regardless of alcohol consumption, people commonly perceive intoxicated others as less agentic with less control over their actions and with a narrower range of emotional states (Davies et al. 2018). Importantly, women are stereotypically perceived as lower in agency than men are (Eagly and Kite 1987), suggesting that perceived intoxication might play a larger role in the dehumanization of drinking women specifically.

Finally, it is possible that the presence of alcohol makes people think of women in sexual terms, which in turn sets the stage for dehumanization. Specifically, there is a large literature in the area of sexual objectification—seeing women as sexual objects, with disproportionate focus on their sexual appeal and functions (Bartky 1990; Fredrickson and Roberts 1997)—and its link to dehumanization. For example, people attribute sexualized women with less ability to experience psychological or physical pleasure or pain (Loughnan et al. 2010), with less competence and warmth (Heflick and Goldenberg 2009), and more animal-like traits (Morris et al. 2018; Puvia and Vaes 2013; Rudman and Mescher 2012; Vaes et al. 2011). Although men are sometimes targets of objectification, women experience objectification more frequently (Davidson et al. 2013; Kozee et al. 2007) and with more dehumanizing consequences than men (e.g., Heflick and Goldenberg 2009). Taken together with research suggesting that drinking women are seen more sexually (e.g., more sexually interested, Abbey et al. 2000; more sexually available, Abbey and Harnish 1995), it is possible that the presence of alcohol will increase dehumanization of women because drinking women are seen more sexually. We explored this issue in two complementary ways. First, we measured perceptions of sexual availability in Experiment 3. Second, although our central focus in the present work was on dehumanization, we also explored whether the presence of alcohol influenced objectification (see the online supplement for analyses regarding the effect of alcohol on objectification), given the links between dehumanization and objectification.

Overview of the Current Work

In the present work, we examined whether the presence of alcohol caused people in the United States to dehumanize young, White women. A large literature has indicated that drinking women are evaluated negatively, but to our knowledge, no research has examined directly whether drinking women are seen as less human. To examine this possibility, we manipulated the presence of alcohol across three studies by depicting a woman holding a beer bottle or a water bottle and then we measured dehumanization. We expected greater dehumanization of the female target when alcohol was present (Hypothesis 1). Importantly, because of gendered norms regarding alcohol consumption, we did not expect drinking men to be dehumanized to the same extent as drinking women (Experiment 2). In addition to target gender, we also examined the effect of participants' gender on dehumanization (Experiments 2 and 3). On one hand, research on perceptions of alcohol consumption would suggest that male participants will dehumanize drinking women more because men focus on drinking women's sexual behaviors and functions to a greater extent than women do (Abbey et al. 1996; Crowe and George 1989; George et al. 1988; Parks and Scheidt 2000). On the other hand, research examining alcohol and social perceptions reveal that both men and women perceive drinking women negatively (i.e., low in social appeal, George et al. 1988), suggesting that male and female participants may dehumanize drinking women to the same extent.

Importantly, we hypothesized that perceived intoxication would emerge as a possible mechanism for the link between the presence of alcohol and dehumanization of drinking women (Hypothesis 2). Using best practices for establishing a causal chain (Spencer et al. 2005), we measured perceived intoxication and examined whether it emerged as an indirect effect of the link between alcohol presence and dehumanization in Experiments 1 and 2, whereas we manipulated intoxication by introducing information about the number of drinks that the woman had consumed in one setting after drinking alcohol or not in Experiment 3. Finally, given prior research that has linked the consumption of alcohol to perceived sexual availability (see Lindgren et al. 2008, for review), we hypothesized alcohol would increase perceived sexual availability (Hypothesis 3) and that perceived sexual availability would emerge as a mechanism for the link between the presence of alcohol and dehumanization (Hypothesis 4) in Experiment 3.

Experiment 1

Experiment 1 provided the first test of our hypotheses. Male participants saw a picture of a young, White woman in a social setting with a bottle of beer or water. They then provided perceptions of her human attributes.

Method

Participants

Because no known prior research has examined the effects of alcohol on dehumanization, we expected medium effect sizes and attempted to recruit approximately 25–30 men per condition. Sixty-four U.S. community men recruited from Amazon's Mechanical Turk participated in our study. As an attention check, participants were asked five times throughout the study to choose a particular answer choice to indicate they were paying attention. Nine participants failed to correctly choose the appropriate answers to all five attention checks, leaving a total of 55 men. Their average age was 35.78 ($SD = 13.12$) and ranged from 19 to 64 years of age. Most of the men identified as White (78.2%, 43), whereas 9.1% (5) identified as Asian/Pacific Islander, 7.3% (4) as Hispanic, 3.6% (2) as African American, and 1.8% (1) identified themselves as Other. All data and study materials are available from the first author upon request.

Procedure and Measures

The experiment was programmed via Qualtrics and alcohol condition was manipulated with one of two pictures of a White woman, aged 21 wearing dating attire at a generic looking bar (see the online supplement). We chose to represent the woman in this manner because the majority of our participants were also White. Additionally, we reasoned that the woman's depicted behaviors (e.g., posting status to Facebook, social drinking) would be regarded as normative for a woman of this age because binge drinking among younger adults is more common than among older adults (Kanny et al. 2018, please see Discussion for limitations of this approach). Specifically, a Facebook profile and persona, "Sam Duncan," was created with a picture of a woman drinking a bottle of beer (alcohol condition) or a bottle of water (control condition). Participants were randomly assigned to view the experimental manipulation or control and provided their perceptions of the woman in the picture. After providing informed consent, participants completed the experiment and were compensated with $.50.

Dehumanization Participants were asked to rate the extent to which they denied the target of human qualities (Bastian et al. 2013b; see also Bastian and Haslam 2010). This eight-item measure included four human uniqueness traits that distinguished Sam from a non-human animal (i.e., Sam appeared refined and cultured [reversed]; Sam appeared rationale and logical, like she was intelligent [reversed]; Sam appeared to lack self-restraint, like an animal; Sam appeared unsophisticated) and four human nature traits that distinguished Sam from a non-human object (i.e., Sam appeared superficial, like she had no depth; Sam appeared mechanical and cold, like a robot; Sam appeared open minded, like she could think clearly about things [reversed]; and Sam appeared emotional, like she was responsive and warm [reversed]). Participants rated the extent to which each item described Sam on a 7-point Likert-type scale from 1 (*Not at All*) to 7 (*Very Much So*), with higher scores indicating greater dehumanization. Mean dehumanization scores were calculated from all eight items ($\alpha = .83$, the correlation between the two subscales was $r = .62$, $p < .001$). Because of previous research linking dehumanization and sexual objectification (Heflick and Goldenberg 2009; Vaes et al. 2011), we also assessed objectification for exploratory purposes. (See the online supplement for an explanation of this measure and results.)

Alcohol Intoxication Alcohol intoxication was measured by asking participants to rate the degree to which they perceived the female target to be intoxicated. Items were: Sam appeared to be tipsy, Sam appeared to be drunk, Sam appeared to be buzzed, and Sam appeared to be intoxicated. These questions were rated on a 7-point Likert-type scale from 1 (*Not At All*) to 7 (*Very Much So*). Mean perceived alcohol intoxication scores were calculated ($\alpha = .91$).

Manipulation Checks Finally, participants were asked to indicate their agreement with the statements, "Sam was drinking water" and "Sam was drinking beer," on a 7-point Likert-type scale from 1 (*Not At All*) to 7 (*Very Much So*).

Results

First, the two manipulation checks were submitted to separate one-way Analyses of Variance (ANOVAs). Confirming that our manipulation was successful, participants in the control condition ($M = 5.76$, $SD = 2.25$) indicated that Sam was drinking water more than participants in the alcohol condition ($M = 1.42$, $SD = 1.33$), $F(1, 53) = 73.56$, $p < .0001$, $\eta_p^2 = .58$, whereas participants in the alcohol condition ($M = 6.04$, $SD = 1.89$) indicated that Sam was drinking beer more than participants in the water condition ($M = 1.69$, $SD = 1.71$), $F(1, 61) = 80.28$, $p < .0001$, $\eta_p^2 = .60$. Participants' age was unrelated to any variables (rs = −.20 – -.03, ps > .15) and was not considered in the remaining analyses.

Second, all dependent variables were submitted to separate one-way ANOVAs. Consistent with Hypothesis 1, there was an effect of alcohol condition on dehumanization, $F(1, 53) = 4.57$, $p = .037$, $\eta_p^2 = .08$. The female target drinking alcohol ($M = 3.23$, $SD = .98$) was dehumanized more than the female target pictured drinking water ($M = 2.69$, $SD = .90$). There was also a significant effect of alcohol condition on perceived intoxication, $F(1, 53) = 14.59$, $p < .001$, $\eta_p^2 = .22$. The female target drinking alcohol ($M = 2.39$, $SD = 1.16$) was perceived as more intoxicated than the female target pictured drinking water ($M = 1.42$, $SD = .69$).

We also examined whether perceived intoxication emerged as a mediator of the link between alcohol condition and dehumanization. Using Hayes' (2018) Process Macro (Model 4) in SPSS we tested a model (see Fig. 1) in which alcohol condition was the predictor (dummy coded, X), perceived intoxication was the mediator (M), and dehumanization was the outcome (Y), with 5000 bootstrapped samples. The proportions of variance explained in the model were $R^2 = .22$ for perceived intoxication and $R^2 = .28$ for dehumanization. Consistent with Hypothesis 2, the alcohol condition was directly related to increased perceived intoxication, and perceived intoxication was related to increased dehumanization. Furthermore, the alcohol condition was found to indirectly increase dehumanization of drinking women through perceived intoxication ($B = .44$, $SE = .14$, 95% CI [.2027, .7367]).

Discussion

Consistent with hypotheses, the presence of alcohol contributed to more dehumanization and perceived intoxication. An indirect effect of perceived intoxication was found, suggesting that perceived intoxication is a mechanism linking alcohol consumption and dehumanization. These results suggest that beyond the mere presence of alcohol, intoxication of women leads men to perceive women as less than human.

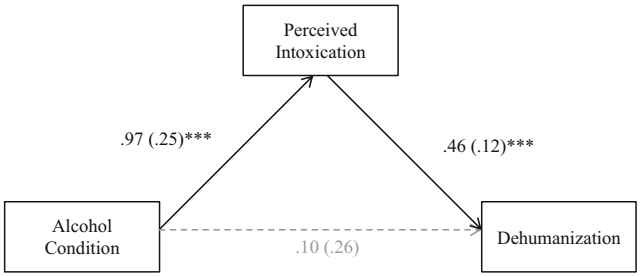

Fig. 1 Mediation of alcohol condition on dehumanization through perceived intoxication in experiment 1. Unstandardized coefficients (standard errors). ***$p < .001$

Experiment 2

Although understanding men's perceptions of drinking women is an important first step, we also explored whether these effects were limited to male perceivers and female targets. Thus, Experiment 2 included a sample of female and male participants, as well as male and female targets, to better understand how gender of perceivers and targets may shape perceptions of drinking individuals.

Method

Participants

Participants were 216 U.S. men and women from Amazon's Mechanical Turk. Four failed to pass attention checks (as described in Experiment 1), 14 failed to correctly identify the target's gender at the end of the study, and one participant failed to indicate their gender, so a total of 91 men and 106 women were included in analyses. The average age of this sample was 35.19 ($SD = 11.17$) and ranged from 19 years of age to 71 years-old. Also in this sample, 72.7% (143) identified as Caucasian Non-Hispanic, 8.1% (16) as Asian/Pacific Island, 3% (6) as Hispanic, 12.1% (24) as African American, 2% (4) as Native American, and 2% (4) identified themselves as Other.

Procedure and Measures

The procedure in Experiment 2 followed that of Experiment 1; however, in Experiment 2 we also manipulated targets' gender. In particular, Sam was the same female target holding a beer or water bottle as in Experiment 1 for half of the participants, or Sam was a male target holding a beer or water bottle for the other half of participants (see the online supplement for the photo stimuli). Participants were randomly assigned to view one of four of the photos of Sam. Measures were exactly the same as in Experiment 1 (dehumanization, $\alpha = .80$; perceived intoxication, $\alpha = .94$).

Results

As in Experiment 1, our results confirmed that our manipulations were successful. Participants in the water condition (M = 4.89, SD = .20) indicated that the target was drinking water more than participants in the alcohol condition (M = 1.70, SD = .19), $F(1, 195) = 133.38$, $p < .0001$, $\eta_p^2 = .41$, whereas participants in the alcohol condition (M = 5.38, SD = .20) indicated that the target was drinking beer more than participants in the water condition (M = 2.37, SD = .21), $F(1, 196) = 106.10$, $p < .0001$, $\eta_p^2 = .35$. Participants' age was unrelated to any variables (rs = −.06 – -.15, $ps > .06$), and thus age was not considered in the remaining analyses.

All dependent variables were then submitted to separate 2 alcohol condition (beer, water) × 2 target gender (male, female) × 2 participant gender (male, female) ANOVAs. The two-way interaction between participant gender × target gender and the three-way interaction were not significant for dehumanization ($p_{two\text{-}way} = .51$, $p_{three\text{-}way} = .85$) or for perceived intoxication ($p_{two\text{-}way} = .12$, $p_{three\text{-}way} = .68$), suggesting there were no differences between male and female participants' perceptions of targets. As a result, we submitted all dependent variables to separate 2 alcohol condition (beer, water) × 2 target gender (male, female) ANOVAs.

As hypothesized, there was a significant main effect of alcohol condition, $F(1, 194) = 5.95$, $p = .02$, $\eta_p^2 = .03$; in line with Hypothesis 1, targets in the alcohol condition (M = 3.10, SD = .09) were dehumanized more than targets in the water condition (M = 2.97, SD = .10). Importantly, this main effect was qualified by a significant alcohol condition × target gender interaction depicted in Fig. 2, $F(1, 194) = 7.68$, $p = .006$, $\eta_p^2 = .04$. Female targets in the alcohol condition (M = 3.30, SD = .13) were dehumanized more than all other targets ($ps < .035$). Moreover, male targets in the alcohol condition (M = 2.90, SD = .14), male targets in the water condition (M = 3.15, SD = .14), and female targets in the water condition (M = 2.80, SD = .14) were similarly dehumanized ($ps > .07$) less than were female targets in the alcohol condition. No other effects emerged ($ps > .19$).

Furthermore, the main effect of alcohol condition on perceived intoxication emerged, $F(1, 194) = 5.41$, $p = .02$, $\eta_p^2 = .03$; targets in the alcohol condition (M = 2.73, SD = .15) were perceived as more intoxicated than targets in the water condition (M = 2.23, SD = .16). This main effect was unexpectedly qualified by an alcohol condition × target gender interaction, $F(1, 194) = 14.00$, $p < .0001$, $\eta_p^2 = .07$. In the alcohol condition, male (M = 2.45, SD = .22) and female (M = 3.01, SD = .20) targets were perceived as similarly intoxicated ($p = .06$), but in the water condition, female targets (M = 1.70, SD = .23) were perceived as less intoxicated than male targets (M = 2.76, SD = .22) ($p = .001$). It is possible that this unexpected difference was due to stereotypes suggesting that men drink more, and to a greater degree, than women do (Capraro 2000; Gomberg 1993; Landrine et al. 1988; Ricciardelli et al. 2001), even though alcohol was absent but because the targets were pictured in a drinking setting (i.e., bar).

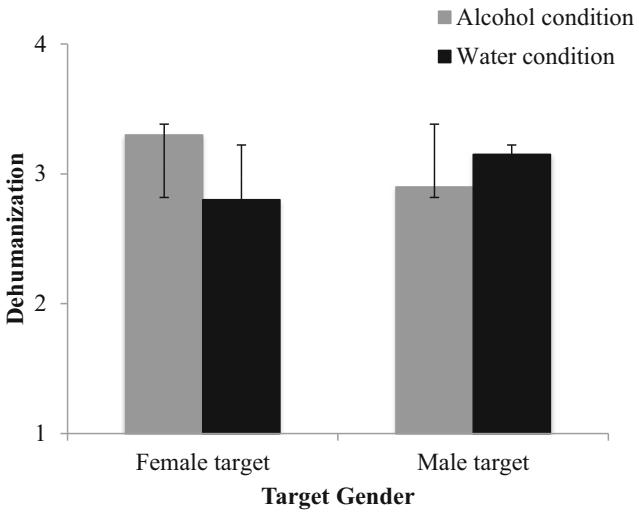

Fig. 2 Interactive effect of alcohol condition and target gender on dehumanization. Only the female target in the alcohol condition was significantly different from the other three groups at the $p < .05$ level. Dehumanization was measured on a 1 to 7 Likert scale

Finally, we again examined whether perceived intoxication emerged as a mechanism for the dehumanization of drinking women using the same Process Macro in SPSS (Model 4, Hayes 2018), specifically with the female targets (see Fig. 3). The proportions of variance explained in the model were $R^2 = .18$ for perceived intoxication and $R^2 = .46$ for dehumanization. Consistent with Hypothesis 2, the alcohol condition was directly related to greater perceived intoxication, and perceived intoxication was related to increased dehumanization for female targets. Additionally, results revealed an indirect effect of alcohol condition on dehumanization through perceived intoxication ($B = .57$, $SE = .13$, 95% CI [.3384, .8309]), suggesting that intoxication perception is a mechanism of the effects of alcohol consumption on dehumanization.

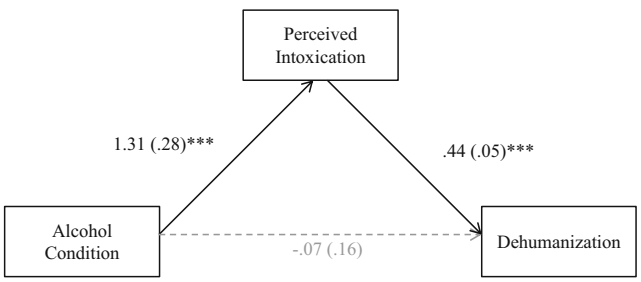

Fig. 3 Mediation of alcohol condition on dehumanization through perceived intoxication in experiment 2. Unstandardized coefficients (standard errors). ***$p < .001$

Discussion

Replicating the effects found in Experiment 1, and consistent with hypotheses, the presence of alcohol contributed to more dehumanization and perceived intoxication of women, but not of men. Furthermore, as in Experiment 1, perceived intoxication emerged as a mediator of the link between alcohol condition and dehumanization of drinking women. Additionally, Experiment 2 extended Experiment 1 by revealing that both men and women dehumanized drinking women and that the effects of alcohol presence on dehumanization are limited to female targets. The results from Experiments 1 and 2 are consistent with perceived intoxication as an explanatory factor of the link between alcohol condition and dehumanization; however, it is impossible to conclude that this relation is causal given both intoxication and dehumanization were measured. To further explore the potential causal relation, Experiment 3 extended Experiments 1 and 2 by manipulating intoxication. Further, linking the present work to prior work in this area, Experiment 3 examined the links between intoxication and dehumanization with perceived sexual availability of drinking women.

Experiment 3

We expected that perceived sexual availability would play an important role in mediating the effect of alcohol on perceiving women as less human. Research examining the consequences of alcohol intoxication has revealed that the presence of alcohol increases perceptions of drinking women as sexually available (Lindgren et al. 2008, for a review); however, little work has examined how these perceptions of sexual availability influence broader social perceptions of women. Similar to drinking individuals, sexualized women are commonly ascribed less agency than non-sexualized women and men are (Blake et al. 2016; Cikara et al. 2011; Loughnan et al. 2010; Nussbaum 1995). Moreover, research examining the relation of sexualization and sexual aggression has revealed that sexually aggressive acts that are abetted by dehumanizing women are more likely to occur when women are perceived as sexually open and lacking agency (Blake et al. 2016). As a result, we expected perceived sexual availability to emerge as a mechanism in the relation between the presence of alcohol and dehumanization.

Method

Participants

A total of 181 people in the United States participated in our study. However, 35 failed to pass attention checks (described in Experiment 1) and were removed from analyses. Thirty-one (20%) participants were students from a small private northeastern institution and received course credit for participating whereas 117 (80%) participants came from Amazon's Mechanical Turk and received $.50 for participating. Additionally, 2 participants failed to report their gender and as a result a total of 61 (42%) men and 85 (58%) women were included in the analyses. The average age of this sample was 30.21 ($SD = 10.71$) and ranged from 17 to 62 years of age. In terms of racial/ethnic identification, 80.8% (118) identified as Caucasian Non-Hispanic, 7.5% (11) as Asian/Pacific Island, and 4.6% (7) as Hispanic, 6.8% (10) as African American.

Procedure and Measures

The alcohol condition was manipulated in the same way as in Experiment 1, with a female target holding a beer or water bottle. Additionally, we added a quantity manipulation to directly manipulate alcohol intoxication. Participants were randomly assigned to an "ambiguous quantity" or "multiple drinks" condition. In the "ambiguous quantity" condition, participants saw the woman's profile with a single beer or water as in Experiments 1 and 2, whereas in the "multiple" drinks condition, participants also saw a Facebook status update conveying either four waters or four beers had been consumed (i.e., "4 drinks in! ha ha keep it coming! Hooray for the weekend!" or "4 waters in! ha ha keep it coming! Hooray for the weekend!"). The statuses were identical except for the use of "drinks" or "water" in the sentence. Although our quantity conditions differ on whether a status update was present (multiple drinks condition) or absent (ambiguous quantity condition), we considered modifying the ambiguous quantity condition (used in prior Experiments) with a similar status update (e.g., "1 drink [water] and done! Hooray for the weekend!), but decided against this approach because we did not want to inadvertently imply that more drinking had already occurred. Additionally, including the ambiguous condition without a status update allowed for a direct replication of the drinking condition included Experiments 1 and 2 on dehumanization and an extension to sexual availability. We return to the limitations of this approach in the General Discussion.

The measure of dehumanization was the same as in Experiments 1 and 2 ($\alpha = .86$). Sexual availability items were created by asking participants about their perceptions that Sam was sexually accessible. Specifically, participants were asked to complete four items in response to a sentence stem: How likely is it that Sam… (a) is single? (b) would engage in casual sex? (c) engages in risky sexual behavior?, and (d) would have a one-night stand? Responses were given on a 7-point scale from 1 (*Not at all*) to 7 (*Likely*). Mean sexual availability scores were calculated ($\alpha = .79$). We confirmed that participants noted the drink quantity manipulation by asking participants to indicate if the person in the picture consumed either

one drink or multiple drinks (forced choice). In addition, soberness of the female target was measured by asking participants "How sober did the person in the photograph appear" using a 5-point Likert-type scale 1 (*Completely sober*) to 5 (*Very intoxicated*).

Results

First, the manipulation check was submitted to separate 2 alcohol condition (beer, water) × 2 quantity condition (ambiguous quantity, multiple) × participant gender (men, women) ANOVAs. There was an effect of alcohol condition, $F(1, 137) = 32.17$, $p < .0001$, $\eta_p^2 = .19$, with the female target in the alcohol condition ($M = 2.01$, $SD = .89$) perceived as less sober than the female target in the water condition ($M = 1.28$, $SD = .59$). The effect of quantity on soberness was not significant, $F(1, 138) = 3.18$, $p = .077$, $\eta_p^2 = .02$. Yet, the alcohol × quantity interaction was significant, $F(1, 138) = 8.11$, $p = .005$, $\eta_p^2 = .06$. In the alcohol condition, the female target was regarded as less sober in the multiple drinks condition ($M = 2.32$, $SD = .88$) than in the ambiguous quantity condition ($M = 1.74$, $SD = .82$), $F(1, 137) = 11.21$, $p = .001$, $\eta_p^2 = .08$, whereas in the water condition, the female target was regarded as equally sober when she had multiple drinks ($M = 1.25$, $SD = .51$) and an ambiguous quantity ($M = 1.38$, $SD = .68$), $p = .46$. Together, these results suggest that the manipulations were successful. Participants' age was unrelated to any variables ($rs - .12 - -.09$, $ps > .14$) and was not considered in the remaining analyses.

Second, all dependent variables were submitted to separate 2 alcohol condition (beer, water) × 2 quantity condition (ambiguous quantity, multiple) × participant gender (male, female) ANOVAs. Similar to Experiment 2, there was no main effect of gender ($ps < .52$) nor were there any significant two-way or three-way interactions including gender for dehumanization ($ps_{two\text{-}way} < .47$, $p_{three\text{-}way} = .29$) or for perceived sexual availability ($ps_{two\text{-}way} < .27$, $p_{three\text{-}way} = .54$), suggesting there were no differences between male and female participants' perceptions of targets. As a result, we submitted all dependent variables to separate 2 alcohol condition (beer, water) × 2 quantity condition (ambiguous, multiple) ANOVAs.

Consistent with Hypothesis 1, and with Experiments 1 and 2, there were significant main effects of alcohol condition, $F(1, 142) = 18.85$, $p < .0001$, $\eta_p^2 = .12$, and quantity condition, $F(1, 142) = 4.29$, $p < .0001$, $\eta_p^2 = .03$, on dehumanization. Female targets were dehumanized more in the alcohol ($M = 3.68$, $SD = 1.12$) relative to water ($M = 2.96$, $SD = .97$) conditions, as well as in the multiple ($M = 3.45$, $SD = 1.13$) relative to ambiguous quantity ($M = 3.18$, $SD = 1.08$) conditions. Contrary to our hypothesis, the expected alcohol × quantity interaction was not significant, $F(1, 142) = .08$, $p = .77$, $\eta_p^2 = .001$.

Regarding sexual availability, and in line with Hypothesis 3, there was an effect of alcohol condition, $F(1, 138) = 18.54$, $p < .0001$, $\eta_p^2 = .12$; the female target in the alcohol condition ($M = 4.79$, $SD = 1.30$) was perceived as more sexually available than was the female target in the water condition ($M = 3.92$, $SD = 1.26$). There was also a main effect of quantity on sexual availability, $F(1, 138) = 5.18$, $p = .02$, $\eta_p^2 = .04$; the female target in the multiple drinks condition ($M = 4.50$, $SD = 1.41$) was perceived as more sexually available than was the female target in the ambiguous quantity condition ($M = 4.19$, $SD = 1.16$). Like the results for dehumanization, the expected alcohol × quantity interaction was not significant, $F(1, 142) = .23$, $p = .63$, $\eta_p^2 = .002$.

Finally, we tested a mediation model (see Fig. 4), including alcohol condition as the predictor (X), perceived sexual availability (M1) as the mediator, and dehumanization as the outcome (Y), using Hayes' (2018) Process Macro in SPSS with 5000 bootstrapped samples (Model 4). The proportions of variance explained in the model were $R^2 = .11$ for perceived sexual availability and $R^2 = .36$ for dehumanization. With respect to the direct effects, there was a positive effect of alcohol condition on perceived sexual availability and dehumanization. Additionally, there was a positive direct effect of perceived sexual availability on dehumanization. With respect to the indirect effect and consistent with Hypothesis 4, perceived sexual availability emerged as a mediator of the link between alcohol condition and dehumanization ($B = .40$, SE .12, 95% CI [.1901, .6665]). Importantly, although the direct effect was still significant, an indirect effect can exist, even when the X → Y relationship is not fully mediated, in this case, the outcome is caused by the predictor, mediator, and some other unmeasured variable. We also ran a parallel model including quantity (vs. alcohol) as the predictor, but it did not significantly predict perceived sexual availability ($p = .13$) or dehumanization ($p = .49$), and the indirect effect was not significant ($B = .16$, $SE = .10$, 95% CI = [−.0449, .3623]), suggesting that the quantity of drinks did not indirectly influence dehumanized perceptions of drinking women through increasing perceptions of sexual availability.

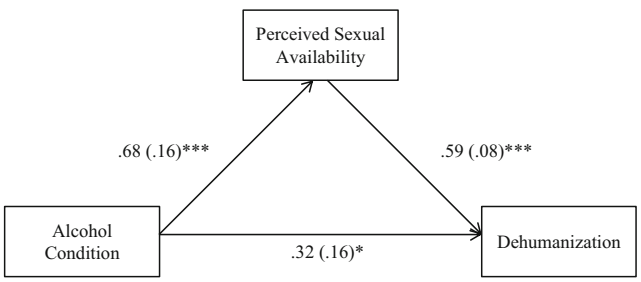

Fig. 4 Mediation of alcohol condition on dehumanization through perceived sexual availability in experiment 3. Unstandardized coefficients (standard errors). *$p = .05$. ***$p < .001$

General Discussion

Alcohol creates negative social perceptions of intoxicated women compared to their sober counterparts. In the present research, we integrated research on alcohol, gender, and social perception with Haslam's (2006) conceptualization of dehumanization to examine whether these negative impressions extend to dehumanization. Across all three experiments and consistent with hypotheses, young women depicted in a social setting with a bottle of beer were seen less as humans. Importantly, Experiment 2 revealed that dehumanization was specific to women drinking alcohol—regardless of whether men were drinking alcohol or not, men were dehumanized to a lesser extent than were women drinking alcohol. Furthermore, perceived intoxication emerged as a mechanism of the link between the presence of alcohol and dehumanization. In Experiments 1 and 2, perceptions that the woman was intoxicated emerged as an indirect effect of the link between alcohol presence and denial of humanness. In Experiment 3, we found that perceived sexual availability emerged as an indirect effect of the link between alcohol presence and denial of humanness.

We also examined whether perceived intoxication emerged as a significant mediator of the link between alcohol presence and dehumanization. The findings across studies were somewhat mixed. Although the findings from Experiments 1 and 2 were promising with the significant indirect effect of perceived intoxication for the cause of alcohol on dehumanization, the findings of Experiment 3 did not completely align with the perceived intoxication explanation. Replicating Experiments 1 and 2, the presence of alcohol, regardless of quantity, caused more dehumanization. Additionally, in Experiment 3, multiple beverages, regardless of type (beer or water), caused people to attribute women with less human attributes. Although the manipulation of alcohol presence and quantity had the intended effects, with women perceived as less sober when depicted as drinking multiple beers (relative to an ambiguous quantity of beers, an ambiguous quantity of waters, or multiple waters), the interaction between alcohol and quantity did not emerge on the primary dependent measures. This effect was expected when the woman was depicted as drinking beer, but it was not expected when she was drinking water. Yet, an exploration into the simple effects revealed that in both the multiple and ambiguous quantity conditions, female targets depicted drinking beer were dehumanized more than female targets depicted drinking water. In other words, drinking women are dehumanized more than non-drinking women, but the interaction was not significant because female targets drinking multiple beers were only marginally more dehumanized than were female targets drinking an ambiguous number of beers.

We also extended the present work to examine the links among alcohol, dehumanization, and sexual availability. Specifically, we estimated a model in which alcohol presence was the predictor and dehumanization was the outcome, with sexual availability as a potential mediator of the alcohol→ dehumanization link. Consistent with the univariate analyses, the direct effects revealed that the alcohol condition predicted greater dehumanization as well as greater sexual availability. Greater perceived sexual availability also predicted dehumanization. With respect to the indirect effects, sexual availability emerged as a significant mediator of the link between alcohol presence and dehumanization. These results suggest that the presence of alcohol leads to perceptions of women as sexually disinhibited and that women's sexual inhibitions are essential to ascriptions of humanity. These effects did not emerge when quantity was entered as the predictor instead of alcohol, but this finding is somewhat expected considering that the effects of quantity were the same in the alcohol condition as in the water condition.

Limitations and Future Directions

Although the present work has several theoretical and practical implications, it is not without its limitations. The effects of alcohol on dehumanization were consistent across experiments, but the effect of drink quantity on dehumanization was less clear and should be interpreted with caution. An exploratory look at the simple effects showed that drinking women were dehumanized and perceived as more sexually available than non-drinking women were in both the multiple and ambiguous quantity conditions. Thus, although alcohol consumption is linked with dehumanization, the quantity of alcohol consumed did not map directly onto our predictions. It is possible that the manipulation of drink quantity was too weak. In the multiple drink condition, it is possible that four beers did not indicate great enough alcohol consumption; it is also possible that the ambiguous drink condition may have been perceived as beginning (or ending) a night of many drinks instead of the pictured one alcoholic drink. Therefore, future research should continue to investigate the effects of quantity to better determine if quantity plays a role in the dehumanization process.

Furthermore, the current work lacks the ability to parse out whether the effects of alcohol on dehumanization were driven by perceiving drinking women as more like animals (animalistic dehumanization) or more like objects (mechanistic dehumanization). On one hand, because previous research shows that drinking women are perceived as disinhibited and disinhibition is associated with animalistic dehumanization, it possible that our findings may be stronger for animalistic dehumanization than for mechanistic dehumanization. On the other hand, it possible that a severely intoxicated woman (e.g., someone who is passed out) is also mechanistically dehumanized. However, as in previous research using the same dehumanization scale (Bastian et al. 2013a), the current

work revealed low reliabilities for the animalistic and mechanistic scales when separated, eliminating our ability to conclude that alcohol had a specific effect on either animalistic or mechanistic dehumanization. Replication efforts are necessary with subscales with stronger psychometric properties to confirm the effects of alcohol on these outcomes.

Because of the larger literature showing negative social perceptions of drinking women, we expected dehumanization of drinking female targets to a greater extent than of drinking male targets. In Experiment 2, male targets drinking alcohol were attributed similar human attributes to male targets drinking water. Based on this preliminary finding, it appears that the mere presence of alcohol does not necessarily lead to dehumanization of drinking men. Yet, it remains a question open for examination. It is possible that if we explicitly manipulated intoxication for male targets, they would be perceived in a dehumanized manner similar to women. Future research should explicitly incorporate male targets into the theoretical rationale as well as the experiments themselves.

An additional limitation is in regard to our use of a White, young, and presumably heterosexual target. Consequently, it remains unclear whether the same effects would emerge for targets that represent racial and ethnic minorities, older individuals, or sexual minorities. For example, prior research shows that African Americans are dehumanized to a greater degree than are European Americans (Goff et al. 2008) and compared to White women, Black women tend to be perceived as more sexually promiscuous (Rosenthal and Lobel 2016). Likewise, prior research shows that older individuals tend to be dehumanized more than younger individuals are (Wiener et al. 2014), and gay men and lesbians are dehumanized to a greater degree than are heterosexual men and women (Fasoli et al. 2015). It is possible then, that greater dehumanization would emerge when alcohol is presented in conjunction with targets who are also racial/ethnic minorities, older, and/or sexual minorities. Future research would benefit from considering the effect of intersectional identities of drinking targets perceived humanness attributes.

Practice Implications

Our work extends research on alcohol, gender, and social perception. In addition to other negative social perceptions of drinking women, alcohol appears to increase dehumanization of women. These findings may have troubling implications because dehumanization has been linked to aggression in general (Bandura et al. 1975) and sexual aggression specifically (Rudman and Mescher 2012). When drinking women are seen as less human, these dehumanizing perceptions may lay the foundation for other adverse outcomes (e.g., sexual assault; disregard for women's health during social and sexual encounters). Although we did not examine sexual aggression in the present work, we did find that drinking women were perceived as more sexually available and that this perception was a significant mediator of the effect of alcohol on dehumanization. In other words, the presence of alcohol led to perceptions that women were more willing to have casual sex, more willing to have a one-night stand, and more willing to engage in risky sex, and these perceptions helped explain perceptions that the woman was more animal- and object-like. If men see women as more sexually available and less than human, they may be more willing to sexually aggress, forcing them (verbally or physically) into unwanted sex (Abbey et al. 2001) as well as pressuring them to engage in unhealthy sexual behaviors (e.g., pressuring them to have sex without a condom, Davis and Logan-Greene 2012). For clinicians, these findings could help researchers explain a range of problematic health-related behaviors that occur in social-sexual situations with drinking women. In particular, interventions designed at increasing accurate perceptions of women's sexual interest and decreased support of rape myths (Grubb and Turner 2012) may have the potential to increase perceptions of drinking women's humanness, with potential to reduce likelihood to engage in sexual assault and increase overall concern regarding women's health in sexual encounters.

Interestingly, we found similar effects of alcohol on dehumanization by both men *and* women. Although it seems unlikely that women would sexually aggress against women in the same way as men, if women perceive drinking women as less human, they may be less likely to intervene in ways to reduce sexual risk. Many sexual assault intervention and prevention efforts incorporate an element that encourages male and female bystanders to intervene in situations involving sexual risk (Banyard et al. 2007), and female bystanders are typically more likely to intervene than are male bystanders (Burn 2009). Yet, if women see potential female victims as less human and deserving of the moral protections typically afforded to people (Bandura 1999) because they have been drinking, then they may be less likely to intervene to help the woman avoid being sexually victimized.

Conclusion

To our knowledge, ours is the first research to integrate dehumanization theory with research on alcohol and social perception. Whereas most prior research in the area of dehumanization has focused on specific groups of other people who are excluded from humanity (e.g., outgroups vs. ingroups, other people vs. the self, Haslam 2006; groups regarded as incompetent and cold, Harris and Fiske 2006), the present research examined a specific *contextual* target factor that may cause dehumanization. With respect to implications for theories of dehumanization, our results are the first known to suggest that the presence of alcohol caused dehumanization of women. Although previous work has identified links between substance use and dehumanization (Harris and Fiske 2006),

our work suggests that much less extreme forms of substance use (e.g., social drinking) are also associated with dehumanization. This result is consistent with the idea raised by Haslam (2006) that dehumanization is not a phenomena limited to extreme forms of intergroup conflict and violence, but also can correspond to basic social cognitive processes that emerge in our everyday impressions of others, namely social perception of drinking women. Beyond social perception, the troubling finding that alcohol contributes to dehumanization may pave the way for many negative social behaviors toward drinking women, suggesting that bar banter regarding perceptions of drinking women may lead to more insidious outcomes.

Acknowledgments We would like to thank Ellen Dudley for her assistance with data collection for Study 1. This represented a portion of her undergraduate honor's thesis.

Compliance with Ethical Standards

All of the research reported in the manuscript complies with APA ethical standards in the treatment of human participants. The Institutional Review Board of the University at which this study was conducted approved of the study and informed consent procedures.

References

Abbey, A. (2011). Alcohol's role in sexual violence perpetration: Theoretical explanations, existing evidence and future directions. *Drug and Alcohol Review, 30*, 481–489. https://doi.org/10.1111/j.1465-3362.2011.00296.x.

Abbey, A., & Harnish, R. J. (1995). Perception of sexual intent: The role of gender, alcohol consumption, and rape supportive attitudes. *Sex Roles, 32*, 297–313. https://doi.org/10.1007/bf01544599.

Abbey, A., Ross, L. T., Mcduffie, D., & McAuslan, P. (1996). Alcohol and dating risk factors for sexual assault among college women. *Psychology of Women Quarterly, 20*, 147–169. https://doi.org/10.1111/j.1471-6402.1996.tb00669.x.

Abbey, A., Zawacki, T., & McAuslan, P. (2000). Alcohol's effects on sexual perception. *Journal of Studies on Alcohol, 61*, 688–697. https://doi.org/10.15288/jsa.2000.61.688.

Abbey, A., Zawacki, T., Buck, P. O., Clinton, A. M., & McAuslan, P. (2001). Alcohol and sexual assault. *Alcohol Research & Health, 25*, 43–51. https://doi.org/10.4135/9781412958479.n25.

Anderson, K. G., Smith, G. T., & Fischer, S. F. (2003). Women and acquired preparedness: Personality and learning implications for alcohol use. *Journal of Studies on Alcohol, 64*, 384–392. https://doi.org/10.15288/jsa.2003.64.384.

Bain, P., Park, J., Kwok, C., & Haslam, N. (2009). Attributing human uniqueness and human nature to cultural groups: Distinct forms of subtle dehumanization. *Group Processes & Intergroup Relations, 12*, 789–805. https://doi.org/10.1177/1368430209340415.

Bandura, A. (1990). Social cognitive theory of moral thought and action. In W. M. Kurtines & J. L. Gewirtz (Eds.), *Handbook of moral behavior and development: Theory, research and applications* (pp. 45–104). Hillsdale: Erlbaum.

Bandura, A. (1999). Moral disengagement in the perpetration of inhumanities. *Personality and Social Psychology Review, 3*, 193–209. https://doi.org/10.1207/s15327957pspr0303_3.

Bandura, A. (2006). Toward a psychology of human agency. *Perspectives on Psychological Science, 1*, 164–180. https://doi.org/10.1111/j.1745-6916.2006.00011.x.

Bandura, A., Underwood, B., & Fromson, M. E. (1975). Disinhibition of aggression through diffusion of responsibility and dehumanization of victims. *Journal of Research in Personality, 9*, 253–269. https://doi.org/10.1016/0092-6566(75)90001-X.

Banyard, V. L., Moynihan, M. M., & Plante, E. G. (2007). Sexual violence prevention through bystander education: An experimental evaluation. *Journal of Community Psychology, 35*, 463–481. https://doi.org/10.1002/jcop.20159.

Bar-Tal, D. (1990). Causes and consequences of delegitimization: Models of conflict and ethnocentrism. *Journal of Social Issues, 46*, 65–81. https://doi.org/10.1111/j.1540-4560.1990.tb00272.x.

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

Bastian, B., & Haslam, N. (2010). Excluded from humanity: The dehumanizing effects of social ostracism. *Journal of Experimental Social Psychology, 46*, 107–113. https://doi.org/10.1016/j.jesp.2009.06.022.

Bastian, B., Denson, T. F., & Haslam, N. (2013a). The roles of dehumanization and moral outrage in retributive justice. *PLoS One, 8*, e61842. https://doi.org/10.1371/journal.pone.006184.

Bastian, B., Jetten, J., Chen, H., Radke, H. R. M., Harding, J. F., & Fasoli, F. (2013b). Losing our humanity: The self-dehumanizing consequences of social ostracism. *Personality and Social Psychology Bulletin, 39*, 156–169. https://doi.org/10.1177/0146167212471205.

Beckman, L. J., & Ackerman, K. T. (1995). Women, alcohol and sexuality. *Recent Developments in Alcohol, 12*, 267–285.

Blake, K. R., Bastian, B., & Denson, T. F. (2016). Perceptions of low agency and high sexual openness mediate the relationship between sexualization and sexual aggression. *Aggressive Behavior, 42*, 483–497. https://doi.org/10.1002/ab.21644.

Blume, S. B. (1991). The problems of quantifying alcohol consumption. *Addiction, 86*, 1059–1060. https://doi.org/10.1111/j.1360-0443.

Burn, S. M. (2009). A situational model of sexual assault prevention through bystander intervention. *Sex Roles, 60*, 779–792. https://doi.org/10.1007/s11199-008-9581-5.

Cameron, C. D., Harris, L. T., & Payne, K. (2016). The emotional cost of humanity: Anticipated exhaustion motivates dehumanization of stigmatized targets. *Social Psychological and Personality Science, 7*, 105–112. https://doi.org/10.1177/1948550615604453.

Capraro, R. L. (2000). Why college men drink: Alcohol, adventure, and the paradox of masculinity. *Journal of American College Health, 48*, 307–315. https://doi.org/10.1080/07448480009596272.

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. https://doi.org/10.1162/jocn.2010.21497.

Corcoran, K. J., & Thomas, L. R. (1991). The influence of observed alcohol consumption on perceptions of initiation of sexual activity in a college dating situation. *Journal of Applied Social Psychology, 21*, 500–507.

Crowe, L. C., & George, W. H. (1989). Alcohol and human sexuality: Review and integration. *Psychological Bulletin, 105*, 374–386. https://doi.org/10.1037/0033-2909.105.3.374.

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. *Journal of Counseling Psychology, 60*, 239–250. https://doi.org/10.1037/a0032075.

Davies, E. L., Lewis, E. B. C., & Hennelly, S. E. (2018). "I am quite mellow but I wouldn't say everyone else is": How UK students compare their drinking behaviors to their peers'. *Substance Abuse*, 1–9. https://doi.org/10.1080/10826084.2017.1416403.

Davis, K. C., & Logan-Greene, P. (2012). Young men's aggressive tactics to avoid condom use: A test of a theoretical model. *Social Work Research, 36*, 223–231. https://doi.org/10.1093/swr/svs027.

Dermen, K., & Cooper, M. (1994). Sex-related alcohol expectancies among adolescents: Scale development. *Psychology of Addictive Behavior, 8*, 152–160.

Eagly, A. H., & Kite, M. E. (1987). Are stereotypes of nationalities applied to both men and women? *Journal of Personality and Social Psychology, 53*, 451–462.

Fasoli, F., Paladino, M. P., Carnaghi, A., Jetten, J., Bastian, B., & Bain, P. G. (2015). Not "just words": Exposure to homophobic epithets leads to dehumanizing physical distancing from gay men. *European Journal of Social Psychology, 46*, 237–248. https://doi.org/10.1002/ejsp.2148.

Formanowicz, M., Goldenberg, A., Saguy, T., Pietraszkiewicz, A., Walker, M., & Gross, J. (2018). Understanding dehumanization: The role of agency and communion. *Journal of Experimental Social Psychology, 77*, 102–116. https://doi.org/10.1016/j.jesp.2018.04.003.

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

Friedman, R. S., McCarthy, D. M., Förster, J., & Denzler, M. (2005). Automatic effects of alcohol cues on sexual attraction. *Addiction, 100*, 672–681. https://doi.org/10.1111/j.1360-0443.2005.01056.x.

Garcia, L. T., & Kushnier, K. (1987). Sexual inferences about female targets: The use of sexual experience correlates. *The Journal of Sex Research, 23*, 252–256.

George, W. H., Gournic, S. J., & McAfee, M. P. (1988). Perceptions of post-drinking female sexuality: Effects of gender, beverage choice, and drink payment. *Journal of Applied Social Psychology, 18*, 1295–1316. https://doi.org/10.1111/j.1559-1816.1988.tb01208.x.

George, W. H., Cue, K. L., Lopez, P. A., Crowe, L. C., & Norris, J. (1995). Self-reported alcohol expectancies and postdrinking sexual inferences about women. *Journal of Applied Social Psychology, 25*, 164–186. https://doi.org/10.1111/j.1559-1816.1995.tb01589.

George, W. H., Lehman, G. L., Cue, K. L., Martinez, L. J., Lopez, P. A., & Norris, J. (1997). Postdrinking sexual inferences: Evidence for linear rather than curvilinear dosage effects. *Journal of Applied Social Psychology, 27*, 629–648. https://doi.org/10.1111/j.1559-1816.1997.tb00652.x.

Goff, P. A., Eberhardt, J. L., Williams, M. J., & Jackson, M. C. (2008). Not yet human: Implicit knowledge, historical dehumanization, and contemporary consequences. *Journal of Personality and Social Psychology, 94*, 292–306. https://doi.org/10.1037/0022-3514.94.2.292.

Gomberg, E. (1993). Women and alcohol: Use and abuse. *The Journal of Nervous and Mental Disease, 181*, 211–219.

Grubb, A., & Turner, E. (2012). Attribution of blame in rape cases: A review of the impact of rape myth acceptance, gender role conformity and substance use on victim blaming. *Aggression and Violent Behavior, 17*, 443–452. https://doi.org/10.1016/j.avb.2012.06.002.

Harris, L. T., & Fiske, S. T. (2006). Dehumanizing the lowest of the low neuroimaging responses to extreme out-groups. *Psychological Science, 17*, 847–853. https://doi.org/10.1111/j.1467-9280.2006.01793.x.

Haslam, N. (2006). Dehumanization: An integrative review. *Personality and Social Psychology Review, 10*, 252–264. https://doi.org/10.1207/s15327957pspr1003_4.

Haslam, N., Bain, P., Douge, L., Lee, M., & Bastian, B. (2005). More human than you: Attributing humanness to self and others. *Journal of Personality and Social Psychology, 89*, 937–950. https://doi.org/10.1037/0022-3514.89.6.937.

Haslam, N., Kashima, Y., Loughnan, S., Shi, J., & Suitner, C. (2008). Subhuman, inhuman, and superhuman: Contrasting humans with nonhumans in three cultures. *Social Cognition, 26*, 248–258. https://doi.org/10.1521/soco.2008.26.2.248.

Haslam, N., Loughnan, S., & Holland, E. (2013). The psychology of humanness. In S. J. Gervais (Ed.), *Objectification and (de)humanization* (pp. 25–51). New York: Springer.

Hayes, A. F. (2018). *Introduction to mediation, moderation, and conditional process analysis* (2nd ed.). New York: Guilford Press.

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. https://doi.org/10.1016/j.jesp.2009.02.008.

Kanin, E. J. (1984). Date rape: Unofficial criminals and victims. *Victimology, 9*, 95–108.

Kanny, D., Naimi, T. S., Liu, Y., Lu, H. L., & Brewer, R. D. (2018). Annual total binge drinks consumed by U.S. adults, 2015. *American Journal of Preventive Medicine, 54*, 486–496. https://doi.org/10.1016/j.amepre.2017.12.021.

Kelman, H. G. (1973). Violence without moral restraint: Reflections on the dehumanization of victims and victimizers. *Journal of Social Issues, 29*, 25–61. https://doi.org/10.1111/j.1540-4560.1973.tb00102.x.

Kelman, H. C. (1976). Violence without restraint: Reflections on the dehumanization of victims and victimizers. In G. M. Kren & L. H. Rappoport (Eds.), *Varieties of psychohistory* (pp. 282–314). New York: Springer.

Koukounas, E., Djokic, J., & Miller, P. (2015). The effect of gender and alcohol placement in the processing of sexual intent. *Drug and Alcohol Review, 34*, 194–201. https://doi.org/10.1111/dar.12214.

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. https://doi.org/10.1111/j.1471-6402.2007.00351.x.

Landrine, H., Bardwell, S., & Dean, T. (1988). Gender expectations for alcohol use: A study of the significance of the masculine role. *Sex Roles, 19*, 703–712. https://doi.org/10.1007/BF00288986.

Leyens, J.-P., Cortes, B., Demoulin, S., Dovidio, J. F., Fiske, S. T., Gaunt, R., … Vaes, J. (2003). Emotional prejudice, essentialism, and nationalism. *European Journal of Social Psychology,* 33, 704–717. https://doi.org/10.1002/ejsp.170

Lindgren, K. P., Parkhill, M. R., George, W. H., & Hendershot, C. S. (2008). Gender differences in perception of sexual intent: A qualitative review and integration. *Psychology of Women Quarterly, 32*, 423–439. https://doi.org/10.1111/j.1471-6402.2008.00456.x.

Loughnan, S., & Haslam, N. (2007). Animals and androids implicit associations between social categories and nonhumans. *Psychological Science, 18*, 116–121. https://doi.org/10.1111/j.1467-9280.2007.01858.x.

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. https://doi.org/10.1002/ejsp.755.

Loughnan, S., Pina, A., Vasquez, E. A., & Puvia, E. (2013). Sexual objectification increases rape victim blame and decreases perceived suffering. *Psychology of Women Quarterly, 37*, 455–461. https://doi.org/10.1177/0361684313485718.

McCarthy, D. M., Kroll, L. S., & Smith, G. T. (2001). Integrating disinhibition and learning risk for alcohol use. *Experimental Clinical Psychopharmacology, 9*, 389–398.

McKenna, L., Boyle, M., Brown, T., Williams, B., Molloy, A., Lewis, B., & Molloy, L. (2012). Levels of empathy in undergraduate nursing students. *International Journal of Nursing Practice, 18*, 246–251. https://doi.org/10.1111/j.1440-172X.2012.02035.x.

Morris, K. L., Goldenberg, J., & Boyd, P. (2018). Women as animals, women as objects: Evidence for two forms of objectification. *Personality and Social Psychology Bulletin, 44*(9), 1302–1314. https://doi.org/10.1177/0146167218765739.

Nussbaum, M. C. (1995). Objectification. *Philosophy and Public Affairs, 24*, 249–291.

Opotow, S. (1990). Moral exclusion and injustice: An introduction. *Journal of Social Issues, 46*, 1–20. https://doi.org/10.1111/j.1540-4560.1990.tb00268.x.

Parks, K. A., & Scheidt, D. M. (2000). Male bar drinkers' perspective on female bar drinkers. *Sex Roles, 43*, 927–941.

Puvia, E., & Vaes, J. (2013). Being a body: Women's appearance related self-views and their dehumanization of sexually objectified female targets. *Sex Roles, 68*, 484–495. https://doi.org/10.1007/s11199-012-0255-y.

Ricciardelli, L., Connor, J., Williams, R., & Young, R. (2001). Gender stereotypes and drinking cognitions as indicators of moderate and high risk drinking among young women and men. *Drug and Alcohol Dependence, 61*, 129–136. https://doi.org/10.1016/s0376-8716(00)00131-9.

Rosenthal, L., & Lobel, M. (2016). Stereotypes of black American women related to sexuality and motherhood. *Psychology of Women Quarterly, 40*, 414–427. https://doi.org/10.1177/0361684315627459.

Rudman, L. A., & Mescher, K. (2012). Of animals and objects: Men's implicit dehumanization of women and male sexual aggression. *Personality and Social Psychology Bulletin, 38*, 734–746.

Scully, D. (1991). *Understanding sexual violence: A study of convicted rapists*. Boston: Unwin Hyman.

Spencer, S. J., Zanna, M. P., & Fong, G. T. (2005). Establishing a causal chain: Why experiments are often more effective than mediational analyses in examining psychological processes. *Journal of Personality and Social Psychology, 89*, 845–851. https://doi.org/10.1037/0022-3514.89.6.845.

Steele, C. M., & Josephs, R. A. (1990). Alcohol myopia: Its prized and dangerous effects. *American Psychologist, 45*, 921–933. https://doi.org/10.1037/0003-066X.45.8.921.

Struch, N., & Schwarz, S. H. (1989). Intergroup aggression: Its predictions and distinctness from in-group bias. *Journal of Personality and Social Psychology, 56*, 364–373. https://doi.org/10.1037/0022-3514.56.3.364.

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. https://doi.org/10.1002/ejsp.824.

Viki, G., Fullerton, I., Raggett, H., Tait, F., & Wilshire, S. (2012). The role of dehumanization in attitudes toward the social exclusion and rehabilitation of sex offenders. *Journal of Applied Social Psychology, 42*, 2349–2367. https://doi.org/10.1111/j.1559-1816.2012.00944.x.

Viki, G. T., Osgood, D., & Phillips, S. (2013). Dehumanization and self-reported proclivity to torture prisoners of war. *Journal of Experimental Social Psychology, 49*, 325–328. https://doi.org/10.1016/j.jesp.2012.11.006.

Wiener, R. L., Gervais, S. J., Brnjic, E., & Nuss, G. D. (2014). Dehumanization of older people: The evaluation of hostile work environments. *Psychology, Public Policy, and Law, 20*, 384–397. https://doi.org/10.1037/law0000013.

Woodruff, K. (1996). Alcohol advertising and violence against women: A media advocacy case. *Health Education and Behavior, 23*, 330–345. https://doi.org/10.1177/10901981960230030.