

# The Effects of Exposure to Catcalling on Women's State Self-Objectification and Body Image

Sophie Fisher<sup>1</sup> · Danielle Lindner<sup>1</sup> · Christopher J. Ferguson<sup>1</sup>

© Springer Science+Business Media, LLC 2017

**Abstract** Previous research has shown that sexual harassment has potential influence on women's well-being and body image. This study evaluated the effects of exposure to catcalling, which is the specific instance of sexual harassment on the street by strangers, on women's state body image and state self-objectification. The participants were randomized into experimental and control groups and were pre-tested to determine their state body image and self-objectification. The participants then watched one of two videos. The experimental video included four women being catcalled by a man while they walked down the street. The control video was set up on the exact same street, with the exact same women, but without the catcalling. Finally, participants completed a post-test questionnaire to measure their state body image and self-objectification as well as their trait body image and self-objectification. Results showed that there were no significant differences between the control and experimental groups regarding either body image or self-objectification. Bayes factor analyses confirmed the results as null.

**Keywords** Sexual harassment · Catcalling · Sexual objectification · Self-objectification · Body image

---

✉ Danielle Lindner  
dlindner@stetson.edu

Sophie Fisher  
sfisher@stetson.edu

Christopher J. Ferguson  
cjfergus@stetson.edu

<sup>1</sup> Department of Psychology, Stetson University, 421 N. Woodland Blvd., Unit 8281, DeLand, FL 32723, USA

The sexual harassment of women was recognized both as a criminal issue and a social problem beginning in the 1970's in the United States (Shechory Bitton and Shaul 2013). Most existing studies on the topic focus on the sexual harassment of women in the workplace (e.g., Collinsworth et al. 2009; Koskela and Tani 2005; Wiener et al. 2013). Sexual harassment in the workplace is an important issue because it can lead to a hostile work environment where women report feeling unsafe. However, all forms of sexual harassment, whether in the workplace or not, can and do have consequences for victims such as body image disturbance, reduced empowerment, self-esteem issues, and more (Koss et al. 1994; Pina and Gannon 2012; Thompson et al. 1999). Little research to date has examined a specific form of sexual harassment called catcalling, or street/stranger harassment occurring in public spaces. The current study seeks to examine the effects of exposure to catcalling using an experimental protocol.

## Catcalling

*Oxford Dictionaries* (n.d.) defines a catcall as “a loud whistle or comment of a sexual nature made by a man to a passing woman.” Catcalling is a form of sexual harassment, or unwanted verbal or nonverbal sexual attention, also aptly described as stranger harassment because the victim and the perpetrator do not know each other (Fairchild and Rudman 2008). Catcalling may be accompanied by whistles, winks, or grabs (Bowman 1993). It involves brief, one-sided interactions in public places (e.g., streets, public transit, shopping malls), and unlike quid pro quo harassment that might occur in the workplace or educational settings, catcalling has no clear purpose other than to call attention to a woman's body or sexuality (Fairchild and Rudman 2008; Saunders et al. 2016).

Of the more than 12,000 women who participated in the Canadian Violence Against Women Survey (VAWS; Johnson and Sacco 1995), 85% indicated that they had experienced stranger harassment at some time in their lives, making it far more common than quid pro quo harassment, which was reported by only 5% of women. Looking more closely at women's day-to-day experiences, data from two samples of women recruited on college campuses and one sample of women recruited via the Internet suggest that 28 to 47% of women experience unwanted sexual remarks or attention at least once every few days (Fairchild 2010; Fairchild and Rudman 2008; Saunders et al. 2016). Eighty percent of women in one of those samples reported that they experienced unwanted sexual remarks or attention at least once per month. Taken together, these findings highlight the frequency with which women experience sexual harassment.

Several studies have documented the negative effects of stranger harassment. Stranger harassment, which in some studies includes catcalling and other forms of sexual harassment perpetrated by strangers such as being followed or receiving an obscene phone call, is associated with a number of negative psychological outcomes, including poor body image, symptoms of anxiety and depression, and lower levels of perceived safety, and increased fear of rape (e.g., Davidson et al. 2016, 2015; Fairchild and Rudman 2008; MacMillan et al. 2000; McCarty et al. 2014; Schneider et al. 1997). In addition, stranger harassment may lead women to make behavioral changes including changing routes or transportation means, avoiding particular geographic locations, avoiding going out at night, or avoiding specific people (Livingston 2015). Despite the fact that stranger harassment generally only includes a brief contact between perpetrator and victim, some literature suggests that victims may perceive stranger harassment as more severe than harassment by persons known to them (MacMillan et al. 2000; McCarty et al. 2014).

Understandably, studies examining the effects of sexual harassment frequently report on negative consequences for victims of such harassment. However, given that catcalling is inherently a public event, the effects of catcalling may be felt by observers. Hitlan et al. (2006) found that 69% of their sample of college women in the United States reported observing sexual harassment and experiencing a negative emotional response. In an experimental study, Chaudoir and Quinn (2010) found that asking participants to watch a video and imagine themselves as a bystander to an instance of sexual harassment did not induce negative affect, but did lead to more negative emotions toward men. These findings suggest that some of the effects of sexual harassment may still be felt by observers, even if they are not the targets of such harassment.

While many are likely to be impacted negatively by catcalling and other forms of street harassment, researchers have argued that under some circumstances, people may not perceive catcalling negatively and may even perceive it

positively. In a popular press piece, Grossman (2008) argued that some women may interpret instances of catcalling in a positive light, perceiving unsolicited remarks about appearance as compliments. Liss et al. (2011) noted that some women may perceive sexual objectification or other forms of sexualization positively because cultural messages teach girls and women that beauty and attractiveness are important if one wants to be successful or happy. From this perspective, catcalling serves to let a woman know that she is living up to cultural ideals about appearance. However, while Liss and colleagues found that some women do enjoy sexualization, they described this enjoyment of sexualization as a form of false empowerment, given that it was ultimately still linked to negative body image and disordered eating. Thus, while some women may, on the surface, appear to respond positively to catcalling, the net effects of this type of sexual objectification still seem to be negative.

### Understanding Catcalling Through the Lens of Objectification Theory

Objectification theory serves as a useful framework for understanding the effects of catcalling and other forms of sexual harassment on victims and bystanders. Objectification theory, first proposed by Fredrickson and Roberts in 1997, was designed to explain the effects of living in a culture where women are consistently sexually objectified, or reduced to bodies to be used and/or evaluated by others rather than being seen as full persons. Objectification theory argues that repeated experiences of or exposure to sexual objectification leads women to internalize an objectified view of their own bodies, termed self-objectification.

Within the objectification theory framework, catcalling can be viewed as a form of interpersonal sexual objectification. Interpersonal sexual objectification is most commonly assessed via self-report using the Interpersonal Sexual Objectification Scale (ISOS; Kozee et al. 2007), which asks respondents to report the frequency which they have experienced any kind of sexually objectifying gaze or unwanted sexual advance (including catcalling) in the last year. Sexual objectification in these forms is associated with increased self-objectification, body shame, and psychological distress (e.g., Fuller-Tyszkiewicz et al. 2012; Kozee et al. 2007; Szymanski and Feltman 2014).

While some may perceive self-objectification in and of itself to be fairly benign, the body of literature regarding the consequences of self-objectification suggests that this act of taking on an observer's perspective toward the body and equating oneself with the body is anything but. In both experimental and correlational studies, self-objectification has been linked to body shame and body dissatisfaction (e.g., Fredrickson et al. 1998; Lindner et al. 2012; Miner-Rubino et al. 2002;

Noll and Fredrickson 1998; Strelan and Hargreaves 2005). These adverse body image states also serve to mediate the relationships between self-objectification and several negative mental health consequences, including symptoms of eating disorders, depression, and sexual dysfunction (e.g., Calogero 2009; Calogero and Thompson 2009; Lindner et al. 2012; Noll and Fredrickson 1998; Tiggemann and Kuring 2004). Additional research links self-objectification to decreased flow experiences and poorer cognitive performance, indicating that the consequences of self-objectification extend beyond mental health (e.g., Fredrickson et al. 1998; Quinn et al. 2006; Tiggemann and Kuring 2004). Taken together, extant research shows that self-objectification is not harmless; thus, it is important to study the antecedents of self-objectification in order to learn more about appropriate targets for preventing it.

## The Present Study

Existing literature regarding the effects of catcalling indicates that it has negative consequences for women's psychological well-being; however, most of the current studies are correlational in nature and involve self-report of catcalling or other interpersonal sexual objectification experiences. The current study investigated the effects of catcalling within the objectification theory framework. We sought to determine whether exposure to catcalling, as with other forms of sexual objectification, has the potential to influence women's self-objectification and body dissatisfaction. We chose to use a proxy design to examine the impact of women's viewing catcalling scenarios on their self-objectification and body dissatisfaction. Although this is obviously less salient than real-life exposure, as mentioned above, simply observing sexual harassment can have negative effects (e.g., Chaudoir and Quinn 2010; Hitlan et al. 2006). This study advances our understanding of the effects of sexual objectification or harassment by specifically isolating catcalling from other forms of sexual objectification or harassment, as was done by Chaudoir and Quinn (2010), and by examining the effects of experimentally manipulated exposure to catcalling on women's self-objectification, body shame, and body dissatisfaction as opposed to more general constructs not specifically related to objectification theory (e.g., negative affect).

Given previous research on sexual harassment and sexual and self-objectification, we hypothesized that participants would experience increases in self-objectification and body dissatisfaction. This effect was expected to hold while controlling for trait self-objectification, trait body image, and previous sexual objectification experiences. We also hypothesized that enjoyment of sexualization would moderate the relationship between exposure to catcalling and negative consequences (i.e., self-objectification and body dissatisfaction).

## Method

### Participants

A total of 92 female college students from a small liberal arts university participated in the study. They ranged in age from 18 to 22 years ( $M = 19.02$ ,  $SD = 1.22$ ). Over half were Caucasian ( $n = 54$ , 58.7%), with the rest identifying as Hispanic/Latino ( $n = 17$ , 18.5%), African American ( $n = 14$ , 15.2%), Native American ( $n = 2$ , 2.2%), Asian/Pacific Islander ( $n = 3$ , 3.3%), and other ( $n = 2$ , 2.2%).

### Materials

**Videos** The video for the experimental condition was created by the first author to show a scenario of a man catcalling random women on a public street. The video depicted one man catcalling four women (two women individually and one pair of women) as they walked past him. The female actors were instructed not to look at the camera or show any reaction to the catcalling in order to prevent their behavior from affecting the participants' responses. The video focused on the man's catcalling behavior. The video for the control condition was filmed on the same public street with the same actors as the experimental video. In the control video the actors did not interact with one another; the female actors simply walked down the street to their destination, without provocation by the male actor.

### Measures

**Demographics Questionnaire** Participants were asked to report their age, ethnicity/race, school year, school major, weight and height.

**Body Image States Scale (BISS; Cash et al. 2002).** This scale was used to measure women's state body image before and after exposure to the video. The BISS consists of 6 items that measure the following domains of current body experience: (1) dissatisfaction–satisfaction with one's overall physical appearance; (2) dissatisfaction–satisfaction with one's body size and shape; (3) dissatisfaction–satisfaction with one's weight; (4) feelings of physical attractiveness–unattractiveness; (5) current feelings about one's looks relative to how one usually feels; and (6) evaluation of one's appearance relative to how the average person looks. For all items, the responses were based upon a 9-point rating scale, with anchors that varied depending on item content and higher scores reflecting more negative body image (i.e., more body dissatisfaction or body shame). In initial psychometric evaluations, the BISS had high internal consistency and was correlated with measures of other aspects of body image (Cash et al. 2002). For this particular study, the internal consistency of the BISS was .87 at pre-test and .93 at post-test.

**Twenty Statements Test (TST; Kuhn and McPartland 1954)** Consistent with the work of Fredrickson, Noll, Roberts, Quinn, and Twenge (1998), the Twenty Statements Test was used to measure state-level changes in self-objectification from pre-test to post-test. This test asks participants to write twenty answers to the question “Who am I?” on blank lines. The first author coded responses while blind to condition using the coding scheme adopted by Fredrickson et al. (1998), such that each participant’s total score was the percentage of appearance-related responses they wrote in response to the prompt.

**The Interpersonal Sexual Objectification Scale (ISOS; Kozee et al. 2007)** The ISOS includes 15 items that assess prior sexual objectification experiences involving body evaluation and physical invasion over the last year. There are 11 items to measure body evaluation and 4 items to measure physical invasion. The participants selected a response from 1 (never) to 5 (almost always) for each question. There is evidence for the scale’s reliability and validity in a sample of college women (Kozee et al. 2007). Prior sexual objectification experiences were treated as a covariate in this study, and the ISOS showed an internal consistency reliably of .94.

**Multidimensional Body-Self Relations Questionnaire Appearance Evaluation Scale (MBSRQ-AE; Cash 2000)** This scale measures trait body satisfaction, which was treated as a covariate in this study. Participants were given 7 statements that they must rate on a scale of 1 to 5, with 1 being definitely disagree, 3 being neither agree nor disagree, and 5 being definitely agree. Several studies provide evidence for the scale’s internal consistency, test-retest reliability, and validity (Cash 2000). The MBSRQ-AE had a Cronbach’s alpha of .90 for this sample.

**Objectified Body Consciousness Body Surveillance Scale (OBC-Surveillance; McKinley and Hyde 1996)** OBC-Surveillance was used as an index of women’s trait self-objectification, which was treated as a covariate in this study. This scale consists of 8 statements rated on a scale of 1 to 7, where 1 = strongly disagree, 4 is neither agree nor disagree, and 7 is strongly agree, and NA is not applicable. There was evidence for the construct validity, internal consistency, and test-retest reliability of the measure in initial validation studies (McKinley and Hyde 1996). Cronbach’s alpha was .79 for OBC-Surveillance in the present study.

**Enjoyment of Sexualization Scale (ESS; Liss et al. 2011)** This 9-item scale measures how much women enjoy the attention that men give them in a sexual and aesthetic way. Enjoyment of sexualization was treated as a moderator in this study. Participants rated their level of agreement with each

statement on a 6-point scale (1 = disagree strongly to 6 = agree strongly). A series of studies by Liss et al. (2011) provided evidence for the scale’s reliability and validity. The scale’s internal consistency was .80 in the present study.

Means and standard deviations for all scales are presented in Table 1.

## Procedure

All study procedures received Institutional Review Board approval. Participants were recruited through a flyer posted in buildings on campus advertising the study with a signup sheet. Students were provided with course credit at the discretion of their instructor. Participants were randomly assigned to conditions by flipping a coin prior to their arrival. There were 46 participants in each group. Participants took part in the study in individual sessions. After providing informed consent, participants completed a pre-test questionnaire consisting of the TST and the BISS to measure their state self-objectification and body image. The participants then watched the catcalling video or the control video. After viewing the video, they completed the TST and the BISS to again measure state self-objectification and body image. They also completed measures of trait self-objectification, trait body image, previous objectification experiences, and their enjoyment of sexualization. The post-test questionnaire also included demographic questions. Lastly, participants were debriefed about the experiment.

**Table 1** Means and standard deviations for study variables

Scale	Mean	Standard deviation	$\eta_p^2/r^2$ difference
Twenty statements test (pre)	.073	.080	.005
	.062	.077	
Twenty statements test (post)	.098	.082	.001
	.125	.154	
BISS (pre)	5.20	1.27	.015
	5.51	1.19	
BISS (post)	5.13	1.57	.033
	5.46	1.27	
MBSRQ	3.31	0.88	.000
	3.29	0.82	
ISOS	2.73	0.81	.071
	2.30	0.74	
OBSC (surveillance)	4.77	1.12	.006
	4.60	1.01	
ESS	3.12	0.68	.009
	3.30	0.70	

For each variable, the experimental group is presented on top, with the control group below. Effect sizes of difference calculated from t-score analyses other than for main study DVs



## Results

All analyses were conducted in SPSS version 19. Examination of kurtosis and skewness values, Shapiro-Wilk Test of Normality, and Normal Q-Q plots supported that the assumption of normality was not violated. Examination of  $z$ -scores indicated there were no outliers. Box's Test found no violations of the assumption of homogeneity of covariance matrices ( $p = .002$ ).

### Main Analyses

Our main hypothesis predicted that participants would experience a decrease in body satisfaction and an increase in state self-objectification after being exposed to catcalling scenario videos relative to the control condition. The effect was hypothesized to hold while controlling for trait self-objectification, trait body image, previous sexual objectification experiences, and pretest dependent variable (i.e., state body image or self-objectification) scores. ANCOVA analyses were performed with body satisfaction and state self-objectification as outcomes. Trait self-objectification, trait body image, previous objectification experiences and pretest dependent variable scores were included as covariates.

Results found that there was no significant condition effect for posttest state body image,  $F(1, 83) = 0.056$ ,  $p = .814$ ,  $\eta_p^2 = .001$ . Pretest state body image  $F(1, 83) = 67.568$ ,  $p < .001$ ,  $\eta_p^2 = .449$  and trait body satisfaction  $F(1, 83) = 11.004$ ,  $p = .001$ ,  $\eta_p^2 = .117$  were significant predictors of posttest state body image. Regarding state self-objectification, no significant effect of condition was found  $F(1, 84) = 2.839$ ,  $p = .096$ ,  $\eta_p^2 = .033$ . Only state self-objectification prescore,  $F(1, 84) = 29.694$ ,  $p < .001$ ,  $\eta_p^2 = .261$  was significant in the model.

Because null results can be hard to interpret through traditional null-hypothesis testing, the main outcome scores were further examined using Bayes Factors. For the results related to state body image, Bayes Factors results were equivalent to 2.977, in favor of the null hypothesis. For results related to state self-objectification, Bayes Factors results were equivalent to 2.930, in favor of the null hypothesis. In both cases, these outcomes lend further support to the null hypothesis as the most likely true outcome as opposed to Type II error.

### Moderator Effects

It appeared possible that the impact of exposure to catcalling experiences could vary depending upon women's experience with sexualization. Some women may find some degree of sexualization to be flattering, whereas others may be offended. Therefore we conducted moderator analyses using PROCESS. PROCESS is a regression-based model that allows for testing of specific direct and moderator effects

between multiple variables (Hayes 2013). Using PROCESS Model 1, experimental condition was entered as the independent variable and post-test state body satisfaction and self-objectification were used as dependent variables. Trait self-objectification, trait body image, previous objectification experiences and dependent variable pretest score were included as covariates.

Results for state body satisfaction did not reveal the presence of any moderator effects. As with the main analyses, experimental condition did not relate to state body satisfaction ( $t = 0.27$ ,  $p = .787$ ) nor was the moderating relationship with experiences of sexualization significant ( $t = 0.28$ ,  $p = .780$ ). Similar results were found for state self-objectification. Experimental condition did not relate to state self-objectification ( $t = -0.58$ ,  $p = .566$ ) nor was the moderating relationship with experiences of sexualisation significant ( $t = 0.84$ ,  $p = .404$ ). Thus, there was little evidence for a particular group of women influenced either positively or negatively by the catcalling exposures.

## Discussion

Sexual harassment of women in public spaces remains an issue of pressing social concern. Although there is a growing body of literature about the effects of sexual harassment more generally, little existing research has examined women's experiences with public sexual harassment or "catcalling" specifically and the impact such behavior may have on women. This study examined the effects of exposure to catcalling on women's state body image and state self-objectification. Surprisingly, our results indicated no difference between participants exposed to a catcalling video and those exposed to a similar video without catcalling. Women did not experience changes in state body image or self-objectification after seeing a video of a man objectifying other women. Analysis of Bayes Factors confirmed the null results are unlikely to be explained as a product of Type II error.

There are several possible explanations for our findings. First, women in our experiment were not directly exposed to catcalling. Objectification theory (Fredrickson and Roberts 1997) is based on the premise that living in a culture in which women are constantly sexually objectified socializes women to internalize an observer's perspective on their own body and, as a result, experience more body image dysfunction and mental health consequences. This theory also holds that exposure to sexual objectification can occur in interpersonal interactions or via things like media messages. Thus, theory would suggest that witnessing objectification of other women could lead to more negative body image and increased self-objectification for the observer, but it is nonetheless possible that women are resistant to effects when witnessing objectification of another women, but might still experience effects if harassed directly.

We chose proxy exposure to minimize ethical concerns associated with directly exposing participants to catcalling given that Chaudoir and Quinn (2010) used a similar paradigm in the past.

The other, more optimistic explanation is that women are more resilient in the face of societal pressures than has often been previously thought. Rather than being easily molded by societal influences, many women may not experience significant negative effects, even when exposed to noxious and harassing stimuli, at least related to self-image (though women may still find harassment threatening or intimidating). This observation is consistent with evidence from other realms, such as media effects, which suggests that media depictions of beauty may not have the pronounced effects for most women as was once thought (Ferguson 2013; Hayes and Tantleff-Dunn 2010). Further, some scholars have argued that the notion that women are easily influenced by societal pressures is itself a patronizing perspective (Gill 2012).

As with most realms of research, only further study will explicate our finding and place it into context with other research results. However, we find our research to be consistent with increasing evidence for general resiliency in the face of societal influences which may argue for a new paradigm when considering societal influences on behaviour (Lang 2013).

## Implications & Further Research

As with all studies, ours had limitations that are worth noting. First, as we acknowledge, it is likely that watching videos of catcalling may not have the same impact as in-person exposure. Second, our sample is relatively modest in size, and it would be good to replicate our findings with larger samples and those outside of university settings. Third, we administered self-report measures of covariates and moderators following exposure to the videos. We made this decision to minimize priming, but we also acknowledge that as a result of this choice, covariate scores may have been impacted by the experimental manipulation. However, as reflected in Table 1, mean scores on covariates were consistent across study groups, so this is not likely.

Our study also had two particular strengths relative to the existing literature on this topic. First, many existing studies on sexual harassment have utilized correlational designs (e.g., Fairchild and Rudman 2008; MacMillan et al. 2000; McCarty et al. 2014), whereas we used an experimental design. Second, we studied catcalling as distinct from other forms of sexual harassment, while much of the existing literature considers catcalling and other forms of sexual harassment together in calculating indices of sexual objectification (e.g., Kozee et al. 2007).

Future directions for research could include examining the frequency and effects of catcalling using ecological momentary assessment techniques, which would not present the same kinds of ethical problems as exposing participants to sexual objectification in a lab setting. It would also be worthwhile to examine whether different types of sexual harassment have differential effects, rather than considering catcalling in conjunction with other forms of sexual harassment that may or may not have the same kind of impact. The issue of sexual harassment of women in public spaces is an important one for researchers to consider. We hope that our study has advanced the science in this area.

## Compliance with Ethical Standards

**Conflict of Interest** Sophie Fisher declares that she has no conflicts of interest. Danielle Lindner declares that she has no conflicts of interest. Christopher J. Ferguson declares that he has no conflicts of interest.

**Ethical Approval** All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

**Informed Consent** Informed consent was obtained from all individual participants included in the study.

## References

- Bowman, C. G. (1993). Street harassment and the informal ghettoization of women. *Harvard Law Review*, *106*, 517.
- Calogero, R. M. (2009). Objectification processes and disordered eating in British women and men. *Journal of Health Psychology*, *14*, 394–402. <https://doi.org/10.1177/1359105309102192>.
- Calogero, R. M., & Thompson, J. K. (2009). Sexual self-esteem in American and British college women: relations with self-objectification and eating problems. *Sex Roles*, *60*, 160–173. <https://doi.org/10.1007/s11199-008-9517-0>.
- Cash, T. (2000). *The multidimensional body-self relations questionnaire*. Virginia Beach: Old Dominion University.
- Cash, T. F., Fleming, E. C., Alindogan, J., Steadman, L., & Whitehead, A. (2002). Beyond body image as a trait: the development and validation of the body image states scale. *Eating Disorders*, *10*, 103–113. <https://doi.org/10.1080/10640260290081678>.
- Chaudoir, S. R., & Quinn, D. M. (2010). Bystander sexism in the inter-group context: the impact of cat-calls on women's reactions towards men. *Sex Roles*, *62*, 623–634. <https://doi.org/10.1007/s11199009-9735-0>.
- Collinsworth, L. L., Fitzgerald, L. F., & Drasgow, F. (2009). In harm's way: factors related to psychological distress following sexual harassment. *Psychology of Women Quarterly*, *33*, 475–490. <https://doi.org/10.1111/j.1471-6402.2009.01525.x>.
- Davidson, M. M., Gervais, S. J., & Sherd, L. W. (2015). The ripple effects of stranger harassment on objectification of self and others. *Psychology of Women Quarterly*, *39*, 53–66. <https://doi.org/10.1177/0361684313514371>.

- Davidson, M. M., Butchko, M. S., Robbins, K., Sherd, L. W., & Gervais, S. J. (2016). The mediating role of perceived safety on street harassment and anxiety. *Psychology of Violence, 6*, 553–561. <https://doi.org/10.1037/a0039970>.
- Fairchild, K. (2010). Context effects on women's perceptions of stranger harassment. *Sexuality and Culture: An Interdisciplinary Quarterly, 14*, 191–216. <https://doi.org/10.1007/s12119-010-9070-1>.
- Fairchild, K., & Rudman, L. A. (2008). Everyday stranger harassment and women's objectification. *Social Justice Research, 21*, 338–357. <https://doi.org/10.1007/s11211-008-0073-0>.
- Ferguson, C. J. (2013). In the eye of the beholder: thin-ideal media affects some but not most viewers in a meta-analytic review of body dissatisfaction in women and men. *Psychology of Popular Media Culture, 2*, 20–37. <https://doi.org/10.1037/a0030766>.
- Fredrickson, B. L., & Roberts, T. (1997). Objectification theory: toward understanding women's lived experiences and mental health risks. *Psychology of Women Quarterly, 21*, 173–206.
- Fredrickson, B. L., Roberts, T., Noll, S. M., Quinn, D. M., & Twenge, J. M. (1998). That swimsuit becomes you: sex differences in self-objectification, restrained eating, and math performance. *Journal of Personality and Social Psychology, 75*, 269–284. <https://doi.org/10.1037/0022-3514.75.1.269>.
- Fuller-Tyszkiewicz, M., Reynard, K., Skouteris, H., & McCabe, M. (2012). An examination of the contextual determinants of self-objectification. *Psychology of Women Quarterly, 36*, 76–87. <https://doi.org/10.1177/0361684311426721>.
- Gill, R. (2012). Media, empowerment and the 'sexualization of culture' debates. *Sex Roles, 66*, 736–745. <https://doi.org/10.1007/s11199-011-0107-1>.
- Grossman, A. J. (2008). Catcalling: creepy or a compliment? Retrieved May 15, 2008 from <http://www.cnn.com/2008/LIVING/personal/05/14/lw.catcalls/index.html>.
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: a regression-based approach*. New York: Guilford Press.
- Hayes, S., & Tantleff-Dunn, S. (2010). Am I too fat to be a princess? Examining the effects of popular children's media on young girls' body image. *British Journal of Developmental Psychology, 28*, 413–426. <https://doi.org/10.1348/026151009X424240>.
- Hitlan, R. T., Schneider, K. T., & Walsh, B. M. (2006). Upsetting behavior: reactions to personal and bystander sexual harassment experiences. *Sex Roles, 55*, 187–195. <https://doi.org/10.1007/s11199-006-9072-5>.
- Johnson, H., & Sacco, V. F. (1995). Researching violence against women: statistics Canada's national survey. *Canadian Journal of Criminology, 37*, 281–304.
- Koskela, H., & Tani, S. (2005). Sold out! Women's practices of resistance against prostitution related sexual harassment. *Women's Studies International Forum, 28*, 418–429. <https://doi.org/10.1016/j.wsif.2005.05.004>.
- Koss, M. P., Goodman, L. A., Browne, A., Fitzgerald, L. F., Keita, G. P., & Russo, N. F. (1994). *No safe haven: male violence against women at home, at work, and in the community*. Washington, DC: American Psychological Association. <https://doi.org/10.1037/10156-000>.
- 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>.
- Kuhn, M., & McPartland, T. S. (1954). An empirical investigation of self-attitudes. *American Sociological Review, 19*, 68–76.
- Lang, A. (2013). Discipline in crisis? The shifting paradigm of mass communication research. *Communication Theory, 23*, 10–24. <https://doi.org/10.1111/comt.12000>.
- Lindner, D., Tantleff-Dunn, S., & Jentsch, F. (2012). Social comparison and the 'circle of objectification'. *Sex Roles, 67*, 222–235. <https://doi.org/10.1007/s11199-012-0175-x>.
- Liss, M., Erchull, M. J., & Ramsey, L. R. (2011). Empowering or oppressing? Development and exploration of the enjoyment of sexualization scale. *Personality and Social Psychology Bulletin, 37*, 55–68. <https://doi.org/10.1177/0146167210386119>.
- Livingston, B. A. (2015). Hollaback! *International street harassment survey project*. Retrieved on July 28, 2016, from <http://www.ihollaback.org/cornell-international-survey-on-street-harrassment/#us>.
- MacMillan, R., Nierobisz, A., & Welsh, S. (2000). Experiencing the streets: harassment and perceptions of safety among women. *Journal of Research in Crime and Delinquency, 37*, 306–322. <https://doi.org/10.1177/0022427800037003003>.
- McCarty, M. K., Iannone, N. E., & Kelly, J. R. (2014). Stanger danger: the role of perpetrator and context in moderating reactions to sexual harassment. *Sexuality and Culture, 18*, 739–758. <https://doi.org/10.1007/s12119-013-9215-0>.
- McKinley, N. M., & Hyde, J. S. (1996). The objectified body consciousness scale: development and validation. *Psychology of Women Quarterly, 20*, 181–215. <https://doi.org/10.1111/j.1471-6402.1996.tb00467.x>.
- Miner-Rubino, K., Twenge, J. M., & Fredrickson, B. L. (2002). Trait self-objectification in women: affective and personality correlates. *Journal of Research in Personality, 36*, 147–172. <https://doi.org/10.1006/jrpe.2001.2343>.
- Noll, S. M., & Fredrickson, B. L. (1998). A mediational model linking self-objectification, body shame, and disordered eating. *Psychology of Women Quarterly, 22*, 623–636. <https://doi.org/10.1111/j.1471-6402.1998.tb00181.x>.
- Pina, A., & Gannon, T. A. (2012). An overview of the literature on antecedents, perceptions and behavioural consequences of sexual harassment. *Journal of Sexual Aggression, 18*, 209–232. <https://doi.org/10.1080/13552600.2010.501909>.
- Quinn, D. M., Kallen, R. W., Twenge, J. M., & Fredrickson, B. L. (2006). The disruptive effect of self-objectification on performance. *Psychology of Women Quarterly, 30*, 59–64. <https://doi.org/10.1111/j.1471-6402.2006.00262.x>.
- Saunders, B. A., Scaturro, C., Guarino, C., & Kelly, E. (2016). Contending with catcalling: the role of system-justifying beliefs and ambivalent sexism in predicting women's coping experiences with (and men's attributes for) stranger harassment. *Current Psychology* (Advance online publication). doi: <https://doi.org/10.1007/s12144-016-9421-7>.
- Schneider, K. T., Swan, S., & Fitzgerald, L. F. (1997). Job-related and psychological effects of sexual harassment in the workplace: empirical evidence from two organizations. *Journal of Applied Psychology, 82*, 401–415. <https://doi.org/10.1037/0021-9010.82.3.401>.
- Shechory Bitton, M., & Shaul, D. B. (2013). Perceptions and attitudes to sexual harassment: an examination of sex differences and the sex composition of the harasser–target dyad. *Journal of Applied Social Psychology, 43*, 2136–2145. <https://doi.org/10.1111/jasp.12166>.
- Strelan, P., & Hargreaves, D. (2005). Women who objectify other women: the vicious circle of objectification? *Sex Roles, 52*, 707–712. <https://doi.org/10.1007/s11199-005-3737-3>.
- Szymanski, D. M., & Feltman, C. E. (2014). Experiencing and coping with sexually objectifying treatment: internalization and resilience. *Sex Roles, 71*, 159–170. <https://doi.org/10.1007/s11199-014-0392-6>.
- Thompson, J. K., Heinberg, L. J., Altabe, M., & Tantleff-Dunn, S. (1999). *Exacting beauty: theory, assessment, and treatment of body image disturbance*. Washington, DC: American Psychological Association. <https://doi.org/10.1037/10312-000>.

- 
- Tiggemann, M., & Kuring, J. K. (2004). The role of body objectification in disordered eating and depressed mood. *British Journal of Clinical Psychology, 43*, 299–311. <https://doi.org/10.1348/0144665031752925>.
- Wiener, R. L., Gervais, S. J., Allen, J., & Marquez, A. (2013). Eye of the beholder: effects of perspective and sexual objectification on harassment judgments. *Psychology, Public Policy, and Law, 19*, 206–221. <https://doi.org/10.1037/a0028497>.