
1-1-2016

Objectification in Action: Self- and Other-Objectification in Mixed-Sex Interpersonal Interactions

Randi L. Garcia

University of Connecticut, rgarcia@smith.edu

Valerie A. Earnshaw

University of Connecticut

Diane M. Quinn

University of Connecticut

Follow this and additional works at: https://scholarworks.smith.edu/psy_facpubs



Part of the [Psychiatry and Psychology Commons](#)

Recommended Citation

Garcia, Randi L.; Earnshaw, Valerie A.; and Quinn, Diane M., "Objectification in Action: Self- and Other-Objectification in Mixed-Sex Interpersonal Interactions" (2016). Psychology: Faculty Publications, Smith College, Northampton, MA.

https://scholarworks.smith.edu/psy_facpubs/64

This Article has been accepted for inclusion in Psychology: Faculty Publications by an authorized administrator of Smith ScholarWorks. For more information, please contact scholarworks@smith.edu

Objectification in Action: Self- and Other-Objectification in Mixed-Sex Interpersonal Interactions

Psychology of Women Quarterly
2016, Vol. 40(2) 213-228
© The Author(s) 2015
Reprints and permission:
sagepub.com/journalsPermissions.nav
DOI: 10.1177/0361684315614966
pwq.sagepub.com


Randi L. Garcia^{1,2}, Valerie A. Earnshaw^{1,3}, and Diane M. Quinn¹

Abstract

Although the process of sexual objectification is theorized to occur within interpersonal interactions, we believe this is the first study to examine sexual objectification and self-objectification in actual (nonconfederate) interpersonal encounters. Men and women were brought into the laboratory and interacted in mixed-sex dyads. We used dyadic analysis to detect whether partners' objectification of each other affected state self-objectification, and the resulting feelings of comfort and authenticity during the interaction. After the interaction, participants completed a cognitive performance task, a measure of career aspirations, and a measure of relationship agency. Results showed that for women only, being objectified by their male interaction partner was associated with an increase in state self-objectification, and state self-objectification led to perceptions that the interaction was less comfortable and less authentic. Furthermore, for women but not for men, having authentic interactions was found to relate positively to relationship agency, career aspirations, and cognitive performance. This research shows that self-objectification is not only a self-process but an interpersonal process heightened by the real-time sexual objectification of a male interaction partner. *Online slides for instructors who want to use this article for teaching are available to PWQ subscribers on PWQ's website at <http://pwq.sagepub.com/supplemental>*

Keywords

objectification, interpersonal interaction, gender differences, dyads, social identity, actor-partner interdependence model, authenticity

Sexual objectification occurs when a person is reduced from a whole and complex human being to a set of sexualized body parts. According to objectification theory, sexual objectification is much more likely to be directed at women than men and to result in a variety of negative outcomes (Fredrickson & Roberts, 1997). Although objectification of women can occur through the media, for example, with sexualized images in magazines and movies, most objectification is likely to occur in daily social interactions. In over a decade of research on objectification theory, however, there has been almost no research on how other- and self-objectification affect interpersonal interactions. In the current work, we brought men and women into the laboratory to interact with each other in a dating context. Using a dyadic analysis approach—the actor-partner interdependence model (APIM; Kenny, Kashy, & Cook, 2006)—we examined the objectification in action for the first time.

In order to explore what happens during an interaction in which one or both partners are objectifying each other, we brought together two theoretical frameworks. The first framework is objectification and self-objectification (Fredrickson & Roberts, 1997; Fredrickson, Roberts, Noll, Quinn, & Twenge, 1998). The second framework is work on identity

threat and interracial interactions (Shelton & Richeson, 2006; Steele, Spencer, & Aronson, 2002). We predicted that being objectified by one's interaction partner, the person one is interacting with, would lead to self-objectification. In addition, we predicted that people who come into the laboratory context high in trait self-objectification (TSO)—people who are chronically concerned with the appearance of their body—would be more likely to self-objectify within this potentially evaluative situation. Moreover, we expected that TSO would interact with being objectified, resulting in particularly high state self-objectification (SSO). We reasoned that feelings of SSO would lead people to feel less comfortable and less authentic within their interactions. Authenticity is the extent to which people act in accordance with their true

¹ Department of Psychology, University of Connecticut, Storrs, CT, USA

² Department of Psychology, Clark University, Worcester, MA, USA

³ Boston Children's Hospital and Harvard Medical School, Boston, MA, USA

Corresponding Author:

Randi L. Garcia, Department of Psychology, Clark University, 950 Main Street, Worcester, MA 01610, USA.

Email: ragarcia@clarku.edu

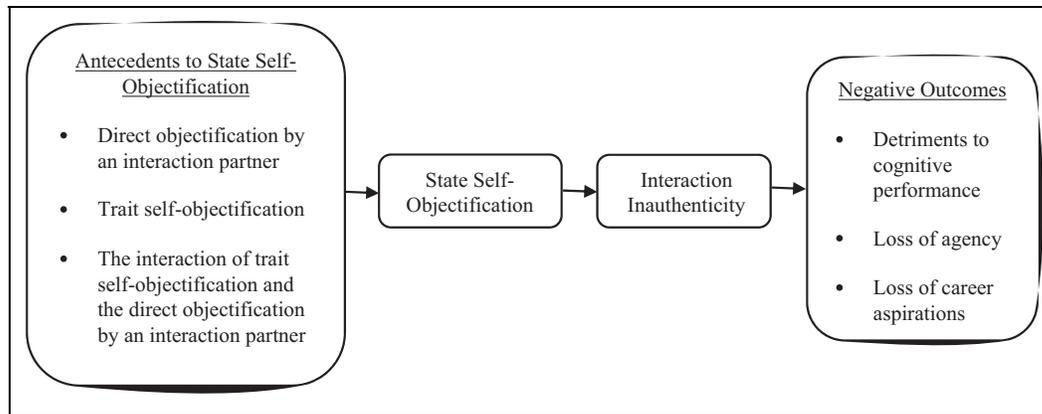


Figure 1. In this theoretical model, sexually objectifying experiences lead to state self-objectification which in turn leads to interaction inauthenticity. It is this feeling of inauthenticity that leads to the negative outcomes.

selves and inner thoughts and feelings (Neff & Harter, 2002). Feelings of authenticity may affect postinteraction outcomes, including feelings of agency in romantic relationships, career aspirations, and cognitive performance (Quinn, Kallen, Twenge, & Fredrickson, 2006). The intervening role of authenticity is unique to interpersonal interactions. A major goal of this research was to empirically investigate the role of interaction authenticity in the objectification process.

By using a dyadic process model, we were able to examine the effects for both men and women simultaneously. Although men are often overlooked in objectification research, using a dyadic process model allowed us to examine whether similar processes occur for men and women. Moreover, studying two people interacting together allowed us to examine the potentially interdependent nature of interpersonal objectification. Based on previous findings in both objectification and stereotype threat research showing effects for only women (Fredrickson et al., 1998; Logel et al., 2009), we predicted that the entire process of SSO would occur for women only and that the full model (Figure 1) would be significant for women only. In the next section, we review the past research evidence for each of the predicted links. First, we review past research on the relation between other-objectification and self-objectification, followed by a review of the consequences of self-objectification within and after an interaction. Finally, we describe the dyadic framework we use in the current study and how it is useful for studying objectification in action.

The Relation Between Other-Objectification and Self-Objectification

One of the central tenets of objectification theory is that being sexually objectified leads to self-objectification. Self-objectification, in turn, leads to negative emotional and cognitive outcomes (Fredrickson & Roberts, 1997). Objectification theory posits that there are three ways that women might experience sexual objectification: (1) being exposed

to sexualized depictions of women in the media, (2) viewing the objectification of women by others, and (3) by experiencing objectification directly in interpersonal encounters. Through these repeated experiences, women learn that they are often valued and judged on their outward appearance rather than internal characteristics or competencies. Women then self-objectify, internalizing this learned standard and thinking about themselves more as bodies than as full selves. Heightened self-objectification can result in a variety of negative outcomes, including decreased concentration, increased depression, and heightened risk of eating disorders (see Calogero, Tantleff-Dunn, & Thompson, 2011, for a review). Whereas the effects of sexualized media have been studied extensively (Aubrey, 2006, 2007; Slater & Tiggemann, 2015), the effects of interpersonal objectification have received much less empirical attention.

Self-objectification is both a state and a trait phenomenon. At the state level, certain situations—such as being sexually objectified by another—may cause people to self-objectify in the moment. No previous objectification research has examined the relation between interpersonal objectification and SSO within a natural, unstructured interaction between two people (where neither is a confederate of the experimenter). One common research paradigm used to manipulate SSO is the “swimsuit–sweater” method in which participants are asked to try on either a swimsuit or a sweater and imagine how they would feel wearing the garment in public. This research has shown that when wearing the swimsuit, women report defining themselves more in terms of their body than their traits or personalities. They report experiencing negative self-conscious emotions, and they show worse performance on cognitive tasks (Fredrickson et al., 1998; Quinn et al., 2006). Men can also experience SSO under similar circumstances, if the swimsuit is changed to a Speedo type (Hebl, King, & Lin, 2004) and/or gay men are included (Martins, Tiggemann, & Kirkbride, 2007). Within these studies, participants are alone when experiencing SSO. They are also in the somewhat artificial position of wearing a swimsuit in a

psychology laboratory. Although the effects in swimsuit-sweater research are strong and consistent (see Quinn, Chaudoir, & Kallen, 2011, for a review), we reasoned that examining SSO in a more ecologically valid situation, such as a mixed-gender interpersonal interactions, would expand the self-objectification literature.

Although no objectification studies have examined actual, or in vivo, interactions between men and women where data are recorded for both members of the pair, several recent studies rely on participants' self-reports of objectification by others, or mimic a male objectifier with confederates or technology. Lending evidence for the hypothesis that sexual objectification can lead to self-objectification, Hill and Fischer (2008) found that women who reported experiencing more sexual objectification (i.e., ubiquitous sexualized gaze and harassment) also reported higher TSO. Likewise, Fairchild and Rudman (2008) found that women who report having experienced more street harassment were higher in TSO. In a study in which participants believed they were interacting with a man (vs. a woman), who could only see their body from their neck down (vs. seeing the neck up or audio only), female participants reported that they felt more like a body instead of a full, authentic person, and they talked less about themselves, thereby narrowing their social presence (Saguy, Quinn, Dovidio, & Pratto, 2010). Male participants put in these same situations did not show the same effects. Female participants expecting to interact with a man experienced greater body shame and social physique anxiety than those expecting to interact with a woman (Calogero, 2004). Gervais, Vescio, and Allen (2011) trained male and female confederates to gaze at opposite sex participants' bodies in an objectifying manner. They found that women, but not men, had decreased math performance after being objectified, compared to a control group. In another study (Gay & Castano, 2010), women were videotaped from the neck down while walking by either a male experimenter or a female experimenter. Results showed that women objectified by the male experimenter (but not by the female experimenter) showed slower response latencies on a cognitive task (difference between easy and difficult trials) completed after the videotaping, but only if the women were also high in trait-level self-objectification. The results of these studies suggest that being objectified by an interaction partner may lead women to feel more like a body, have greater anxiety about their bodies, feel less authentic, and show performance deficits. The studies also point to fewer negative consequences for men.

Self-objectification has been more extensively studied as a trait-level variable. TSO is the extent to which people are chronically preoccupied with their appearance (Fredrickson et al., 1998) and value the appearance of their body more than its function. High TSO is correlated with greater body surveillance (i.e., thinking about how the body looks to others), increased body shame, more depression, lower self-esteem, and higher incidence of eating disorders (see Moradi & Huang, 2008, for a review). Whereas Fredrickson et al.

(1998) found that wearing a swimsuit rather than a sweater had a greater effect on SSO for women higher in TSO, an important issue for the current study is whether people who are chronically preoccupied with their appearance (high TSO) are more likely to experience an increased focus on their appearance within the context of interpersonal interactions. That is, people who are higher in TSO may experience more SSO within interactions than people lower in TSO. A daily diary study (Breines, Crocker, & Garcia, 2008) demonstrated that women who were high in trait appearance-contingent self-worth—a construct similar to TSO—experienced greater SSO in a variety of daily situations than women who were low in trait appearance-contingent self-worth. Moreover, as noted above, women who were higher in TSO experienced greater cognitive deficits when being objectified by a male experimenter (Gay & Castano, 2010). Based on this evidence, and evidence of a positive overall effect of TSO on SSO for both men and women (Fredrickson et al., 1998), we predicted an interaction between TSO and being objectified such that women who are high in TSO would experience greater SSO when objectified by an interaction partner than women who are high in TSO but who are not objectified, and greater SSO than women who are low in TSO.

Consequences of SSO Within and After an Interaction

As reviewed above, being objectified by another person, possessing trait-level self-objectification, and the interaction of the two may lead to the experience of feeling like a body (i.e., SSO). In the current work, we sought to examine whether there is a psychological process that occurs between experiencing SSO in an interaction and negative outcomes postinteraction (e.g., decreased cognitive performance). In considering what the psychological process might be, we turned to broader work on stereotyping and identity threat within interactions.

How does it feel to be in a social situation in which one experiences SSO? There is very little objectification research to directly answer this question. If the question is broadened, however, to ask, "What does it feel like to be in a social situation in which one is categorized or stereotyped negatively?" then there is a rich tradition of research that examines the interpersonal perceptions and outcomes of members of stigmatized or negatively stereotyped groups (e.g., Deaux & Major, 1987; Steele et al., 2002). Although this research tradition has been criticized for its lack of focus on real interpersonal interactions (Hebl & Dovidio, 2005), studies examining cross-race interactions (see Shelton & Richeson, 2006, for a review of a relational approach) and cross-gender interactions within stereotyped domains (Logel et al., 2009) have highlighted critical variables. In particular, research by Shelton, Richeson, and Salvatore (2005) found that when racial minorities expected that White interaction partners would stereotype them, they reported feeling less

authentic in their interactions. This study suggests that a reduction in feelings of authenticity may also be an immediate consequence of SSO in an interpersonal interaction.

Objectification theory posits that people who are experiencing SSO are focused on the appearance of their body to the exclusion of nonobservable attributes such as their thoughts and feelings; people who are experiencing SSO are less in tune with their private, subjective experiences that otherwise may help them feel like real and genuine human beings (Fredrickson et al., 1998; Fredrickson & Roberts, 1997). Detachment from their feelings and experiences during the interaction may then contribute to perceptions of the interaction as inauthentic and less comfortable in general. Indeed, in the study by Saguy et al. (2010), women who believed they were interacting with a man who could see them only from the neck down over a video-feed reported that they felt like their body and identity were two separate things. Tolman, Impett, Tracy, and Michael (2006) also found a relation between body objectification and feelings of inauthenticity in relationships. In the current work, we examine feelings of comfort and authenticity within the interaction as the mediating process between SSO and postinteraction consequences. Bringing the objectification research together with the work on interracial interactions, we predicted that being objectified within an interaction will lead to more SSO which, in turn, will lead to feeling less authentic and less comfortable within the interaction.

Past research has demonstrated that SSO is associated with a variety of deleterious outcomes for the self, including decreased performance, increased appearance anxiety (e.g., social physique anxiety; Hart, Leary, & Rejeski, 1989), and increased feelings of shame (for a review, see Moradi & Huang, 2008). However, these studies have used strong, blatant manipulations of objectification. No research to date has examined the effect of objectification received from a real partner in a real interaction. We sought to examine whether this type of subtle interpersonal objectification, more typical of everyday life, would have the same detrimental effects on the self. It is possible that the objectification that occurs in real dyadic situations has no negative effects or even has positive effects on the interaction partners. We predicted that there would be negative outcomes and that these outcomes would be directly related to the inauthenticity that SSO produces in an interaction. This predicted experience of inauthenticity that results from SSO is a new extension of objectification theory—we posited that feelings of inauthenticity, or not being truly oneself, may be crucial to the process by which women experience negative consequences after being objectified in an interpersonal interaction.

Research on self-objectification as well as broader identity threat points to three potential negative outcomes of self-objectification: cognitive performance, career aspirations, and relationship agency. Previous work has found that women show decrements in cognitive performance as a result of SSO. Specifically, in studies using the swimsuit-sweater

paradigm, women wearing the swimsuit have shown worse math performance and worse performance on Stroop color-naming tasks than women wearing a sweater (Fredrickson et al., 1998; Quinn et al., 2006). Also, in a recent study in which female engineering students interacted with a male confederate who was trained to act in a sexist manner—including greater gazing at the female's body—the women showed worse performance on a math test (Logel et al., 2009).

Another potential consequence of experiencing SSO within the context of interpersonal interactions may be decreased agency. Although career aspirations have not been studied in relation to self-objectification, research has demonstrated that activating a general female stereotype leads to an avoidance of math and science careers (Davies, Spencer, Quinn, & Gerhardtstein, 2002) and leadership positions (Davies, Spencer, & Steele, 2005). Women may be particularly at risk of developing a passive orientation to their careers (a stereotype-consistent behavior) when placed in a situation that activates a general female stereotype (Davies et al., 2005), such as an objectifying encounter.

Finally, women may be less likely to take an agentic role in relationships after experiencing objectification. For example, they may be less likely to initiate relationship changes by asking others out for dates or proposing marriage. They may also be less likely to initiate self-protective behaviors, such as condom use, thereby putting themselves at risk for negative health outcomes. Heterosexual dating encounters have been found to prime self-objectification for single women (Sanchez & Broccoli, 2008). Impett, Schooler, and Tolman (2006) found that objectification and inauthenticity lead to lowered sexual efficacy which leads to lowered condom use. In sum, feeling uncomfortable and inauthentic within an interaction may undermine the extent to which a person feels able, and/or desires, to act on various domains of their life where self-efficacy may be important. We chose to examine the two different life domains—career aspirations and relationship agency—to examine this possibility.

The Dyadic Framework

Studying the interpersonal causes and consequences of SSO by having people interact requires a methodology that is appropriate for this dyadic framework. One framework that can be used when studying face-to-face interactions between two participants in which neither person is a confederate is the APIM (Kenny et al., 2006). Figure 2 illustrates the APIM employed in the current study to investigate the effects of both an interaction partner's behavior and one's own behavior on SSO. For example, using Figure 2, if two people, Alyssa and Mike, are interacting, the variable *X* refers to the predictor variable which is the extent to which one objectifies his or her partner, or other-objectification. (Note that the model pools the results across all dyads participating in the study. Alyssa and Mike are meant only to be an example of one dyad in a study of many dyads.) The variable *Y* refers

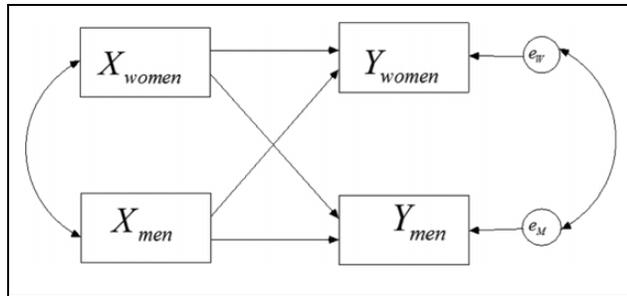


Figure 2. This figure depicts the actor-partner interdependence model (APIM).

to the dependent variable, SSO. The model includes the effects of participants' own behavior on their own outcome, called actor effects. There are two actor effects in the model, the male actor effect and the female actor effect. For example, Mike's objectification of Alyssa may affect the extent to which he state self-objectifies, and Alyssa's objectification of Mike may affect the extent to which she state self-objectifies. These two actor effects are shown in Figure 2 as the horizontal lines, or paths from X_{men} to Y_{men} and from X_{women} to Y_{women} . There are partner effects, these are the effects of a person's partner X on the person's own outcome. For example, Mike's objectification of Alyssa may affect the extent to which she state self-objectifies, and Alyssa's objectification of Mike may affect the extent to which he state self-objectifies. These partner effects are represented by the diagonal paths in the model (i.e., the effect of X_{men} on Y_{women} and the effect of X_{women} on Y_{men}). It is important to note that the APIM estimates the partner effect, controlling for the actor effect, and estimates the actor effect, controlling for the partner effect. For example, the extent to which Alyssa state self-objectifies during an interaction could be affected by both her objectification of Mike and Mike's objectification of her, and the relative strength of each of these effects can be assessed while controlling for each other.

In this dyadic study, the two participants' outcomes, Y_{men} and Y_{women} in Figure 1, are not independent observations because the participants have interacted. The APIM estimates this nonindependence by correlating the errors in prediction of Y_{men} and Y_{women} . This is depicted by the curved line on the right side of Figure 2. In a similar manner, the predictor variables, X_{men} and X_{women} , are allowed to correlate because it may be that the dyad members have similar scores on the predictor variable. For example, we would expect that the more the individuals objectify their partners, the more the partners will objectify them back.

With such a design, SSO and state other-objectification (SOO) of both the participants and their interaction partners can be investigated simultaneously. Furthermore, additional paths can be added to this model including the actor effects of TSO (i.e., the effect of individuals TSO on their own SSO). In the current study, we assumed that one's TSO might amplify the effect of a partner's other-objectification on the

person's SSO. In the example, Alyssa's own TSO can interact with Mike's objectification of her to produce greater levels of Alyssa's SSO. Gender differences can also be tested with this model revealing whether the effect of Mike's objectification of Alyssa on Alyssa's SSO is greater than the effect of Alyssa's objectification of Mike on Mike's SSO. By using a dyadic approach, we can obtain a more detailed analysis of who is likely to be self-objectifying and what are the interpersonal experiences that lead to their SSO.

Current Study

In the current study, we explored the antecedents and consequences of experiencing SSO within the context of mixed-gender interpersonal interactions. We brought participants into a laboratory and asked them to spend 10 minutes getting to know one another. Hence, we tried to capture objectification in action. Figure 3 depicts the process by which we hypothesize objectification within an interaction leads to detrimental outcomes. Each hypothesized path is labeled in Figure 3. Both men's and women's experiences and the effects of their behavior on each other were evaluated with this model. We hypothesized that (Hypothesis 1) being objectified in an interaction will lead women to (state) self-objectify within that interaction. Stated in terms of the dyadic model, the APIM, we predicted that there would be partner effects, such that the more a woman's male partner reports having objectified her during the interaction, the more she will report having self-objectified during the interaction. We predicted that there would be an overall effect of TSO on SSO for both men and women (Hypothesis 2) and that there would be an interaction of women's TSO and their partners' other-objectification (Hypothesis 3), such that women who are higher in TSO will be even more negatively affected by men's objectification than women who are low in TSO. That is, there would be an amplification of the partner effect of other-objectification on women's SSO by women's own TSO. We hypothesized that for both men and women, increased SSO would lead to perceiving the interaction as less comfortable and authentic (Hypothesis 4) and that, for women only, interaction inauthenticity would lead to reduced performance (Hypothesis 5), reduced career aspirations (Hypothesis 6), and reduced anticipated relationship agency (Hypothesis 7). We expected that the process of self- and other-objectification within an interaction would be different for men and women. In terms of the dyadic analysis, we tested whether men and women were empirically distinguishable (Kenny et al., 2006); that is, if we could ignore gender in the model without losing information.

Method

Participants

Fifty-eight previously unacquainted mixed-sex dyads (116 total participants) from introductory psychology courses at

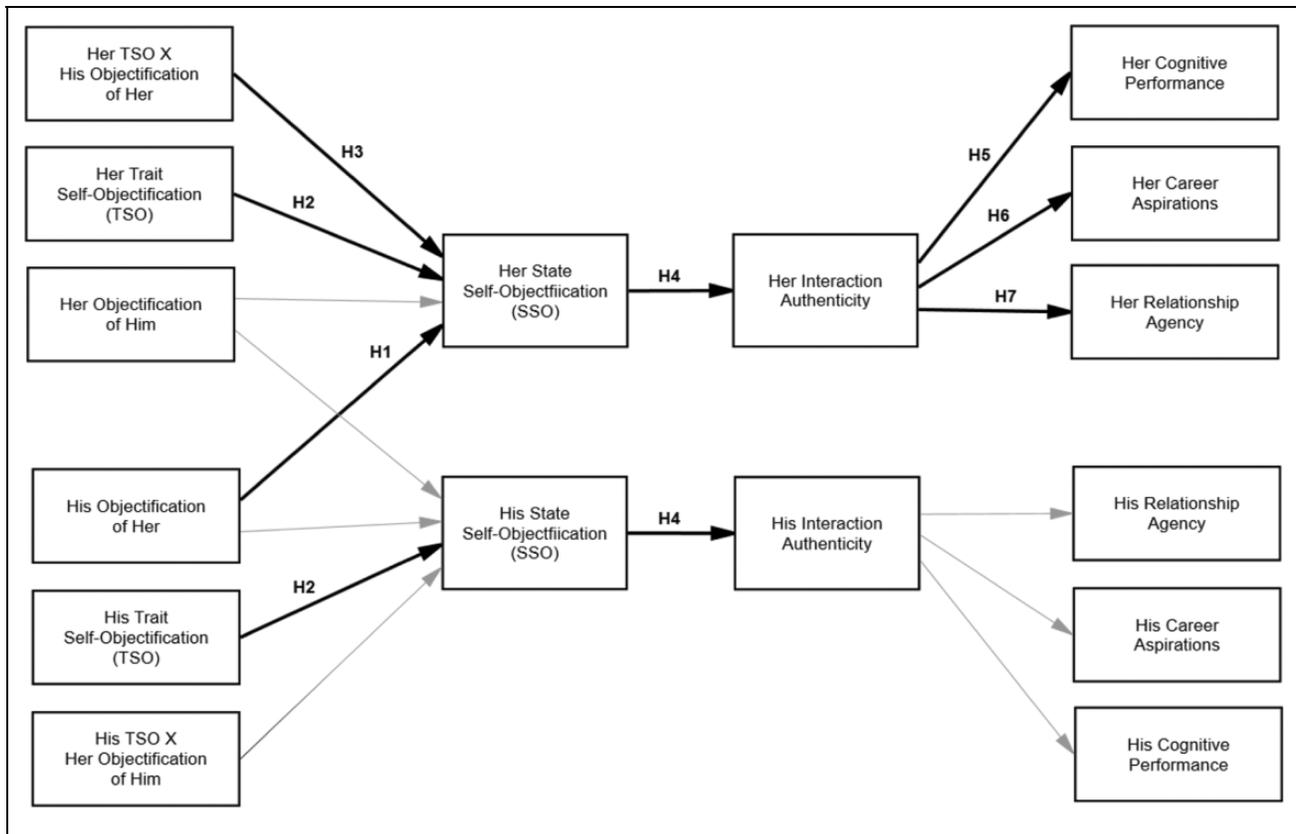


Figure 3. (Hypothesis 1) We hypothesize that, for women, being objectified in an interaction by a man will increase state self-objectification (SSO) within that interaction. (Hypothesis 2) We hypothesize that people who are high in trait self-objectification (TSO) will have higher SSO during the interaction than people lower in TSO. (Hypothesis 3) There will be an interaction of one's TSO and one's partner's objectification, such that people who are higher in TSO will be even more negatively affected by their partner's objectification than those who are lower in TSO. (Hypothesis 4) We hypothesize that SSO will lead to perceiving the interaction as less comfortable and authentic. (Hypothesis 5) We further hypothesize that higher perceptions of interaction inauthenticity will lead to reduced cognitive performance, (Hypothesis 6) reduced career aspirations, and (Hypothesis 7) reduced anticipated relationship agency.

a northeastern university in the United States participated. The participants were mostly first-year college students and each received course credit for their participation. The average age in the sample was 19.10 years ($SD = 0.91$). The racial makeup of the sample was 75% European American/White. There were 36 same-race dyads (34 White/White and 2 same-race racial minority) and 22 cross-race dyads in the sample. Nineteen of the cross-race dyads were racial minority/White and are further broken down as 6 female racial minority/male White dyads and 13 female White/male racial minority dyads. The remaining four cross-race dyads were cross-racial minority group pairs. The small sample sizes of each racial combination precluded analyses for moderation by race.

Procedure

Each participant arrived separately at the laboratory. The experimenter immediately led each participant into his or her own cubicle upon arrival to prevent any communication

between the participants before the interaction. Each participant also was screened for prior acquaintance to confirm that they had not met before. In their separate cubicles, they were then asked to sign their consent to participate, and the study was described as follows: "This is a study looking at how students form different types of relationships at college." A prompt on the computer screen told the participants that they were assigned to the "college relationships" condition and gave the following instructions:

During the interaction, please think about whether you would date your interaction partner. After the interaction, you will be asked to evaluate your partner as if they were a potential dating partner. In other words, we would like to know if you would date your interaction partner and why. Also, your interaction partner will be evaluating you in the same manner.

This prompt was meant to create a situation in which objectification might be more common than in the typical laboratory setting. Indeed, past research has found that

Table 1. Correlations Among Study Variables for Men and Women.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Women's trait self-objectification	—													
2. Women's authenticity of interaction	-.16	—												
3. Her objectification of him	.28*	-.24	—											
4. Women's state self-objectification	.20	-.50**	.33*	—										
5. Women's future relationship agency	-.12	.35**	-.13	-.22	—									
6. Women's future career aspirations	-.26	.24	-.17	-.22	.04	—								
7. Women's cognitive performance	.15	.24	.14	-.17	.14	-.16	—							
8. Men's trait self-objectification	-.08	-.23	-.08	.04	-.16	.13	-.05	—						
9. Men's authenticity of interaction	-.12	.23	-.21	-.15	.07	.23	.09	-.14	—					
10. His objectification of her	.07	-.38**	.32*	.39**	-.21	-.06	.13	.33*	-.25	—				
11. Men's state self-objectification	.01	-.08	.04	-.13	-.05	-.26	.01	.07	-.29*	.14	—			
12. Men's future relationship agency	-.14	-.03	-.10	-.06	.05	.21	.06	.40**	.19	.14	-.00	—		
13. Men's future career aspirations	-.09	-.15	.01	.18	-.02	-.05	-.11	.11	-.18	.18	-.04	.00	—	
14. Men's cognitive performance of men	.06	.10	-.05	-.01	.21	-.10	.05	-.08	-.03	-.10	.12	.04	.05	—

Note. Intraclass correlations are in boldface.

* $p < .05$. ** $p < .01$.

priming a dating context can induce SSO (Sanchez & Broccoli, 2008).

The two participants were then led into a larger interaction room where they were told to sit on prearranged stools whose placement imposed a standard sitting distance of approximately 36 inches. Before leaving the interaction room, the experimenter instructed the participants to “get to know each other” for 10 minutes. Thereafter, the interactions were unstructured. All interactions were video recorded with the intention of coding participants' behaviors; however, the poor quality of the videos prohibited further analysis. After 10 minutes, the experimenter re-entered the room and stopped the interaction. The two participants were then led back into their separate cubicles to complete a set of postinteraction measures. Upon completion of the postinteraction measures, participants were thanked for their participation and debriefed.

Postinteraction Measures

The order of the following description of the measures used in this study corresponds to the order in which the measures were presented to the participants after they completed the interaction. Mean composites of the items for each scale described in this section were used in the analyses below except where otherwise noted. Intraclass correlations and bivariate correlations for all measures appear in Table 1, and all descriptive statistics for men and women as well as tests for gender differences in the means appear in Table 2.

Cognitive performance. To assess cognitive performance after the interaction, we used trigrams from the Remote Associates Task (McFarlin & Blascovich, 1984). Ten easy items were selected and presented to participants. An example trigram is “Quack: Pond: Waddle” with the correct answer “Duck”; another is “Honey: Swarm: Sting” with the answer being “Bee.” A 30-second time limit on each item

Table 2. Descriptive Statistics for Study Variables.

		M	SD	t	df	p
Trait self-objectification (TSO)	Women	0.86	12.97	1.08	57	.283
	Men	-1.62	10.72			
Other-objectification	Women	-1.68	1.52	-2.80	57	.007
	Men	-1.03	1.51			
State self-objectification (SSO)	Women	2.83	1.54	0.31	57	.758
	Men	2.74	1.28			
Authenticity of interaction	Women	5.46	0.95	0.28	57	.782
	Men	5.42	0.85			
Relationship agency	Women	4.49	0.83	-6.40	57	<.001
	Men	5.37	0.67			
Cognitive performance	Women	5.12	1.84	0.05	57	.960
	Men	5.10	1.90			
Career aspirations	Women	3.56	0.46	-1.25	57	.215
	Men	3.67	0.51			

Note. *t*-values and associated *p*-values are for the paired samples *t*-test.

was given. If answered correctly, 1 point was given. Possible scores ranged from 0 to 10. In the current sample, this time restriction was effective in preventing ceiling effects; the highest score was 8 of the 10 for both men and women. Despite appearing after other- and self-objectification in our causal model, cognitive performance was measured first directly after the interaction to capture potentially immediate detriments to performance. This choice is discussed further in the Discussion section.

SOO. To assess the extent to which participants were objectifying their partners during the 10-minute interaction, participants were asked a sequence of questions regarding their frequency of thoughts about various aspects of their partner. Four of these questions asked the participants to rate on a 1 (*not at all*) to 7 (*constantly*) scale how frequently during the interaction they thought about their interaction partner's internal characteristics including personality, friends

and family, academics, and extracurricular interests. Four additional questions asked about external, or appearance-related characteristics, including appearance, body, clothing, and body parts. For example, each participant was asked, "During the interaction, how frequently did you think about your interaction partner's body?" To create a measure of SOO, the difference between the average frequency of thought about their partner's external appearance ($\alpha = .86$ for women and $\alpha = .84$ for men) and the average frequency of thought about their partner's internal characteristics ($\alpha = .58$ for women and $\alpha = .56$ for men) was calculated. On this measure, a score of 0 meant thinking about one's partner's body and appearance just as much as his or her internal characteristics. A negative score indicated that the participant reported thinking more about his or her partner's internal characteristics than his or her body or appearance. As seen in Table 2, the men reported objectifying their female partners significantly more ($M = 1.03$, $SD = 1.51$) than the women ($M = -1.68$, $SD = 1.52$) reported objectifying their male partners, $t(57) = -2.80$, $p = .007$, although both reported that they thought more about the partner's internal characteristics than appearance.

The use of difference scores as predictor variables might be of concern because the relation between the difference score and the outcome variable might be due to only one element of the difference score. To address this issue, we examined the correlations between the partner's reported thoughts about one's internal characteristics, the partner's thoughts about one's external appearance, and one's SSO separately. We found that, across the whole sample, partners' thoughts about internal characteristics are marginally negatively correlated with SSO, $r = -.18$, $p = .050$, and partner's thoughts about external appearances are positively related to SSO to about the same extent but not significantly so, $r = .11$, $p = .263$. In contrast, the difference score—what we are calling other-objectification—is significantly correlated with SSO, $r = .23$, $p = .014$. Thus, we concluded that what is important for SSO is the difference between internal and external characteristics and not the elements separately.

Interaction authenticity. To assess the extent to which participants felt comfortable in the interaction and perceived the interaction to be authentic, we asked them to rate the extent to which they felt the interaction was comfortable, happy, friendly, warm, easygoing, sincere, and authentic on a scale ranging from 1 (*not at all*) to 7 (*very much*). In addition, participants were asked one question about their interaction partner's authenticity and one about their own: "Do you think your partner was authentic during your interaction?" and "Were you authentic during your interaction?" They indicated their answers to these questions on a scale ranging from 1 (*not authentic at all*) to 7 (*very authentic*). Together these 9 items formed a reliable scale for interaction authenticity ($\alpha = .87$ for women and $\alpha = .83$ for men).

SSO. To assess SSO, we used a single-item from the measure employed by Saguy and colleagues (2010) which asked, "How much did you feel like a body versus a full self?" Participants responded on a scale ranging from 1 (*like a body only*) to 7 (*a full self*). This item was then reverse coded—higher scores correspond to more SSO. Two items were used to assess SSO in Saguy et al. (2010) but with relatively low reliability, $r = .56$; we chose to use the 1 item of the 2 with more face validity.

State social physique anxiety. We used 6 items from the Social Physique Anxiety scale (Martin, Rejeski, Leary, McAuley, & Bane, 1997) and modified these items to be specifically about the participant's physique anxiety during the interaction. The scale had good reliability for women, $\alpha = .85$, and for men, $\alpha = .83$. Based on past research, this measure was tested as an alternative mediator to interaction authenticity.

Relationship agency. To assess how agentic the participants believe they will be in future romantic relationships, we asked how likely it was that they would take the following actions: "ask someone out on a date," "open the door for your date," "pay for a date," "ask your boyfriend/girlfriend to marry you," "initiate sex with your girlfriend/boyfriend," "initiate condom use during sex," "surprise your boyfriend/girlfriend with a gift," and "ask your girlfriend/boyfriend to move with you to a new place." Responses were indicated on a scale ranging from 1 (*not at all likely*) to 7 (*extremely likely*). These items were fairly reliable for women, $\alpha = .68$, but not reliable for men, $\alpha = .53$. Despite the low reliability for this measure, composite scores were created for both men and women, although any relations with this variable may be attenuated.

Career aspirations. To assess participants' career aspirations after the interaction, we used a 10-item version of the Career Aspirations Scale (Gray & O'Brien, 2007), which asked the participants how true 10 statements were about their future careers, on a scale ranging from 0 (*not at all true of me*) to 4 (*very true of me*). Example items include "I hope to become a leader in my career field" and "I hope to move up through any organization or business I work in." These items were fairly reliable, $\alpha = .65$ for women and $\alpha = .67$ for men.

TSO. To assess TSO, we used the Self-Objectification Questionnaire which asks the participants to rank order both appearance and functional aspects of their bodies by impact of their physical self-concepts (Fredrickson et al., 1998; Noll & Fredrickson, 1998). The average rank of the functional items is subtracted from the average rank of the appearance items. In all analyses, this measure was multiplied by -1 so that positive scores mean more TSO. Because we did not want participants to be suspicious about the nature of the study, this questionnaire was given at the end of the postinteraction measures. Given it is a stable trait measure,

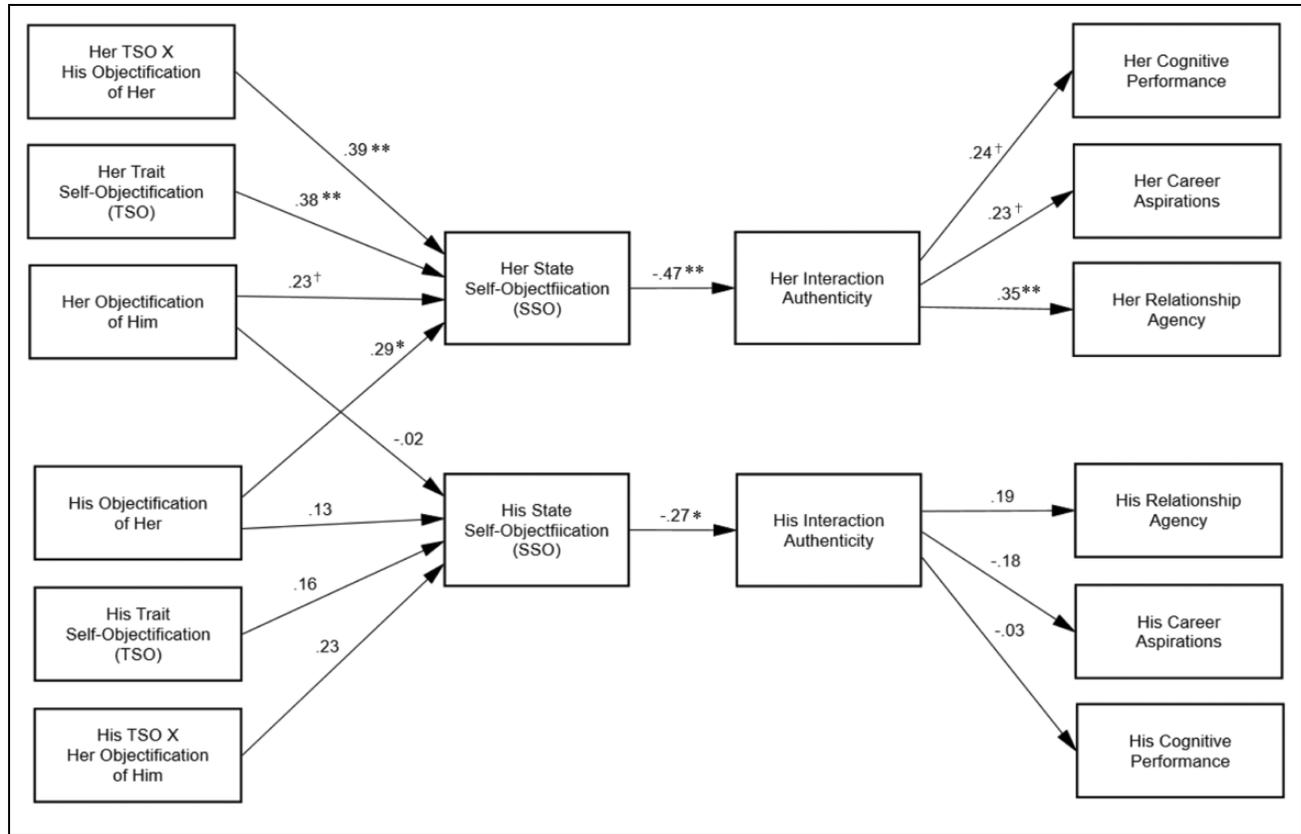


Figure 4. This figure contains the standardized path estimates for the final model. [†] $p < .10$, * $p < .05$, ** $p < .01$. The measurement errors, disturbances, and correlations are not included in this figure for simplicity.

we did not expect it to be impacted by the study variables. Indeed, there was no significant correlation between women’s TSO and men’s reported other-objectification in the interaction, $r = .07$, $p = .615$, nor was there a correlation between men’s TSO and women’s reported other-objectification, $r = -.007$, $p = .958$.

Results

Path Analysis with AMOS 21 (Arbuckle, 2012) was used to estimate all of the relations hypothesized in Figure 3. Although the use of structural equation modeling to remove measurement error would be ideal, we opted for path analysis due to our relatively small sample size. One path model, referred to here as the final model, was used to simultaneously estimate all of the effects for men and women, but for ease of understanding, the results are described in sections. All variables in the model were standardized with the grand mean and pooled standard deviation for both men and women except for other-objectification and TSO, which already had a meaningful zero value (i.e., no objectification and equal importance placed on appearance and performance, respectively). Thus, these two variables were only divided by their pooled standard deviations and not grand mean centered. Last, to control for the nonindependence inherent in dyadic

data, the errors of all endogenous variables were correlated (as in the right-hand side of Figure 2). The final model fits the data well, $\chi^2(84) = 84.31$, $p = .470$, CFI = .998, RMSEA = .008, PCLOSE = .781, and RMR = .112. The standardized estimates of all paths are presented in Figure 4. All first-order direct effects were estimated and found to be non-significant (p values ranging from .08 to .96). Thus, they were all removed from the final model for parsimony; furthermore, there was no significant decline in fit when removing these 14 paths, $\Delta\chi^2(14) = 11.79$, $p = .623$.

To test if the process of self-objectification in an interaction is the same for both men and women, further constraints were imposed on the final model to form a model treating the dyad members as indistinguishable (Olsen & Kenny, 2006). More specifically, all equivalent exogenous means, endogenous error variances, intercepts, and all of the path estimates were set equal across men and women. This indistinguishable dyads model was estimated and compared to the final model. We found that there was a significant decline in fit when treating the dyads as indistinguishable, $\chi^2(29) = 76.96$, $p < .001$; we concluded that the dyads are distinguishable by gender. We also tested if all eight paths in the model could be fixed equal across gender and we found marginally significant decline in fit, $\chi^2(8) = 14.78$, $p = .063$, thus the process by which men and women experience self-objectification in

an interaction is marginally different in the current study; however, these differences need to be tested in future studies with larger samples to assess generalizability of findings. We chose to leave the paths unconstrained in the final model because of our theoretical interest in examining the process of objectification across genders.

Results for Women

We hypothesized that being objectified in an interaction would lead to SSO (Hypothesis 1). Indeed, there was a statistically significant effect of his objectification of her on her SSO, $\beta = 0.32$, $CR = 2.44$, $p = .015$; that is, the more that he reported objectifying her during the interaction, the more she reported that she felt like a body during the interaction. In addition to the partner effects of other-objectification, actor effects were estimated. Her objectification of him had a marginally significant effect on her own SSO, $\beta = 0.26$, $CR = 1.93$, $p = .054$.

We hypothesized that SSO would be affected by one's TSO (Hypothesis 2) as well as the interaction between TSO and one's partner's other-objectification for women only (Hypothesis 3). As hypothesized, for women, there was a statistically significant actor effect of TSO on SSO, such that the higher her TSO, the more she reported that she thought of herself as a body during the interaction, $\beta = 0.41$, $CR = 2.79$, $p = .005$. The interaction of TSO and partner's other-objectification on women's SSO was also statistically significant, $\beta = 0.27$, $CR = 3.045$, $p = .002$. This interaction was such that for women who were high in TSO (1 *SD* above the mean), a male partner's other-objectification increased her SSO during the interaction ($\beta = 0.64$, $CR = 3.97$, $p < .001$). However, women who were low in TSO (1 *SD* below the mean) were unaffected by their interaction partner's other-objectification ($\beta = 0.04$, $CR = 0.25$, $p = .805$; see Figure 5). The squared multiple correlation for women's SSO was .292—about 29.2% of the variance in women's SSO was explained by the variables in the final model.

Furthermore, it was hypothesized that SSO during an interaction would lead to feelings of discomfort and perceptions of inauthenticity (Hypothesis 4). Indeed, there was a statistically significant negative effect of the woman's SSO on her perception of authenticity during the interaction, $\beta = 0.43$, $CR = -4.17$, $p < .001$. In turn, higher authenticity was related to marginally higher career aspirations ($\beta = 0.23$, $CR = 1.82$, $p = .069$, $R^2 = .06$; Hypothesis 6), significantly higher relationship agency ($\beta = 0.34$, $CR = 2.81$, $p = .005$, $R^2 = .12$; Hypothesis 7), and marginally better cognitive performance ($\beta = 0.24$, $CR = 1.87$, $p = .062$, $R^2 = .06$; Hypothesis 5) for women. Although authenticity's relations with career aspirations and cognitive performance were only marginally significant, we note that the effects are in the predicted direction; attention to these effects in future studies with larger samples is recommended.

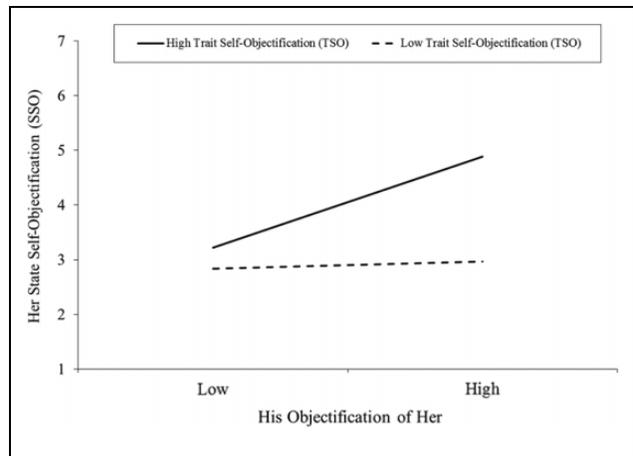


Figure 5. This figure depicts the interaction of his objectification of her and her trait self-objectification (TSO) on her state self-objectification (SSO). The slope of the darker line, high TSO for women, is statistically significant, $\beta = 0.64$, $CR = 3.97$, $p < .001$, but the slope of the dashed line, low TSO for women, is not different from zero, $\beta = 0.04$, $CR = 0.25$, $p = .805$.

Indirect effects. All of the following indirect effects were tested by calculating bias-corrected bootstrapped *p* values in AMOS 21. We found that there was a statistically significant indirect effect of her SSO on her relationship agency through authenticity, *indirect effect* = 0.15, $SE = 0.07$, $p = .002$. Her SSO also had a statistically significant indirect effect on her career aspirations (*indirect effect* = -0.10, $SE = 0.06$, $p = .026$) and on her cognitive performance (*indirect effect* = -0.10, $SE = 0.06$, $p = .023$) through authenticity. Thus, there is evidence that the more she self-objectified in the interaction, the less authentic she perceived the interaction to be, and this in turn lead to less relationship agency, lower cognitive performance, and lower career aspirations.

In addition, we tested the indirect effects of being objectified by an interaction partner on cognitive performance, relationship agency, and career aspirations mediated through SSO and perceptions of interaction authenticity. His objectification of her had a statistically significant indirect effect on her relationship agency (*indirect effect* = 0.05, $SE = 0.04$, $p = .029$), and on her career aspirations (*indirect effect* = -0.03, $SE = 0.03$, $p = .042$), and a marginally significant indirect effect on her cognitive performance (*indirect effect* = -0.03, $SE = 0.04$, $p = .055$). Evidence supports the mediated path between his other-objectification on self-reported relationship agency and career aspirations by way of an increase in her SSO which then lead to lower self-reported authenticity during an interaction.

Results for Men

In contrast to the results for women, her objectification of him did not significantly predict his SSO, $\beta = -0.02$, $CR = -0.12$, $p = .908$, nor did his objectification of her predict

his own SSO, $\beta = 0.13$, $CR = 0.93$, $p = .355$. There was also no significant parallel male actor effect of TSO on SSO, $\beta = 0.15$, $CR = 0.73$, $p = .468$ (Hypothesis 2). We also tested the interaction of his TSO and her other-objectification on his SSO but there was no significant interaction, $\beta = 0.13$, $CR = 0.99$, $p = .325$. Furthermore, the squared multiple correlation for SSO was only .034 for men—3.4% of the variance in SSO for men was explained by the exogenous variables. We note that in the final model, there was a statistically significant negative correlation between her residual SSO and his residual SSO, $r = -.271$, $CR = -1.971$, $p = .049$. Therefore, in terms of the residual variance, the more she reported feeling like a body, the less he reported that he felt like a body (or the more he reported he felt like a full self).

Parallel to the results for women, men's SSO negatively predicted his perceptions of interaction comfort and authenticity, $\beta = 0.30$, $CR = -2.16$, $p = .031$ (Hypothesis 4). However, there was no statistically significant effect of authenticity on his relationship agency ($\beta = 0.15$, $CR = 1.46$, $p = .145$, $R^2 = .04$), his career aspirations ($\beta = -0.19$, $CR = 1.39$, $p = .165$, $R^2 = .033$), nor on his cognitive performance ($\beta = -0.03$, $CR = -0.21$, $p = .833$, $R^2 < .01$).

Alternative Models

Participants responded to the other-objectification items as well as the SSO item while thinking back on their experiences in the interaction; because of this correlational design, we cannot be sure of the proposed causal directions in our model. In the theoretical model (see Figure 1), other-objectification leads to SSO, which in turn leads to inauthenticity. To test if this model was incorrectly specified, two alternative models were estimated and compared to the final model. In Alternative Model 1, we tested whether other-objectification leads to inauthenticity, which in turn leads to SSO (which in turn causes the outcomes of interest). Alternative Model 1 had the same constraints placed on the model as described above and thus the same degrees of freedom. With a larger χ^2 statistic, this model was not as good a fit to the data, $\chi^2(84) = 101.88$, $p = .090$, $CFI = .868$, $RMSEA = .061$, $PCLOSE = .328$, standardized RMR = .111.

In Alternative Model 2, we tested whether SSO, TSO, and the interaction of SSO and TSO lead one's partner to other-objectification—that is, we switched the position of other-objectification and SSO—to test whether feeling like a body and valuing one's appearance can lead one's partner to objectify one in an interaction which in turn has negative consequences. With the same degrees of freedom, this model was also a worse fitting model than our final model, $\chi^2(84) = 100.10$, $p = .111$, $CFI = .762$, $RMSEA = .058$, $PCLOSE = .372$, standardized RMR = .114, Akaike information criterion (AIC) = 236.100. The AIC for the final model is 220.312. The AIC is used to compare non-nested models with a smaller AIC indicating the best fit.

Last, past research has found links between SSO and physique anxiety (Calogero, 2004). In Alternative Model 3, we used social physique anxiety as the mediator between SSO and the three outcomes: cognitive performance, relationship agency, and career aspirations. That is, interaction authenticity was replaced by social physique anxiety in this alternative model. This alternative model was also a good fit to the data, $\chi^2(84) = 90.21$, $p = .302$, $CFI = .95$, $RMSEA = .036$, $PCLOSE = .637$, standardized RMR = .111, AIC = 226.212, but it was not as good a fit as the final model, AIC = 220.312.

Discussion

We believe the current study is the first to examine the self- and other-objectification among participants engaged in interpersonal interactions. Men and women interacted in mixed-sex dyads and both partners reported the extent to which they objectified their partner (i.e., thought of them in terms of body and appearance) and reported the extent to which they self-objectified (i.e., felt like they were their bodies rather than fully human) in the interaction. Although all participants reported thinking about their partners more in terms of internal than external (appearance) attributes, men reported objectifying their partners more than women. Moreover, men's objectification of their partners was related to women feeling more like bodies during the interaction, whereas women's objectification of their male partners had no such significant effect. We also found that for women, but not for men, trait levels of self-objectification directly contributed to state self-objectification and interacted with their partner's objectification of the self. Consequently, women who were high in trait self-objectification were most affected by men's objectification of them and experienced the most state self-objectification. We did not expect that only women's trait self-objectification and men's objectification of them in the interaction would lead to more state self-objectification. Also, the more women objectified their partner, the more state self-objectification they reported experiencing. A recent study found that partner-objectification within romantic relationships can reduce one's own relationship-satisfaction for both men and women (Zurbriggen, Ramsey, & Jaworski, 2011). Perhaps the self-objectification that results from objectifying one's partner is part of this process for women. Thus, it seems women are vulnerable to state self-objectification from a number of sources—none of which affected men.

We also found that state self-objectification was negatively correlated between men and women after other-objectification and trait self-objectification were accounted for. That is, the more one self-objectified, the less one's partner self-objectified—or, the more one felt like a full human in the interaction, the more one's partner felt like a body. This negative correlation, or negative nonindependence (Kenny et al., 2006), could only have been found using a dyadic design. Negative nonindependence in self-objectification

corresponds to past research on complementarity (Sadler & Woody, 2003) that found that an interaction partner's dominant behavior corresponds to more submissive behavior by one's partner. Future research investigating state self-objectification in interpersonal interactions should seek to replicate this finding to further establish the zero-sum nature of self-objectification. Perhaps men gain feelings of comfort and power by objectifying women in interactions or perhaps men are routinely in positions of power that result in objectifying cognitions (Civile & Obhi, 2015).

For both women and men, state self-objectification was related to decreased feelings of comfort and authenticity in the interaction. Thus, to the extent that people feel less than fully human—more like bodies—the less they feel authentic in the interaction. These feelings of inauthenticity were associated with decreased relationship agency, decreased cognitive performance, and decreased career aspirations for women only. It is important to note that, for women, there were significant indirect effects from experiencing state self-objectification to lower relationship agency, lower cognitive performance, and lowered career aspirations, through interaction authenticity. Thus, for women, there is some indication that feeling less than fully human was related to multiple negative outcomes.

Implications of Current Work

Sexual objectification occurs frequently, within a wide range of situations. What happens when women and men objectify each other? How do they view themselves and feel afterwards? What are the potential long-term consequences of objectification? Past research has provided some insight into the processes that follow from objectification, by answering these questions separately. By examining objectification within an interpersonal interaction, the current study examines these questions in tandem and thus provides more insight into the processes that follow self- and other-objectification. We trace the effects of objectification from its sources (i.e., other-objectification and trait self-objectification), through its transitory impact on the self (i.e., state self-objectification) and the interpersonal interaction (i.e., interaction authenticity), to its potentially far-reaching effects (i.e., career aspirations, performance, and relationship agency). As such, the current work provides key insights into the process of objectification.

The current work is, to our knowledge, the first to demonstrate that interpersonal objectification by a real interaction partner leads to state self-objectification among women. Women were more likely to self-objectify, or report they feel more like bodies than full human beings, when they were objectified by men. This supports objectification theory (Fredrickson & Roberts, 1997), which posits that objectification by men leads to self-objectification. A major benefit of using a dyadic design and analysis strategy is that we are able to test these partner effects in the objectification process. Whereas

previous work has examined women's perceptions of being objectified, the current work was able to capture the extent to which men reported objectifying women, and to model its effect on women's state self-objectification. Instead of artificially manipulating the men's actions, the current study allowed for a natural interaction and included men's self-report of what they were thinking about their partner. The women's perceptions of themselves, in turn, were predicted from the men's self-reports providing evidence that the women were affected by the men's thoughts, not just by their own thoughts.

Second, the current study bridges past work examining the effects of identity threat within interpersonal interactions (e.g., Shelton, Richeson, & Salvatore, 2005) with objectification theory to build a stronger understanding of how other-objectification has an impact on women's outcomes via the self-reported feelings of interaction authenticity. By reducing women to bodies to be looked at, other-objectification may signal that women are of lower status and evoke negative stereotypes associated with women. The current study suggests that being objectified leads women to also view themselves as bodies (i.e., engage in state self-objectification), possibly temporarily internalizing the lower status and negative stereotypes associated with women. Feeling like a body and the activation of negative stereotypes of women may lead women to feel less comfortable and less authentic, and ultimately experience outcomes consistent with stereotype threat such as reduced leadership aspirations (Davies et al., 2002). The current work could encourage future work on the relations between self-objectification and identity threat.

Third, the current work underscores the negative impact of objectification by men on women's outcomes. Being objectified by their male interaction partner was associated with women's decreased career aspirations and relationship agency. It is important that these effects were found with low absolute levels of other-objectification within the context of a laboratory setting. In contexts outside of the protective atmosphere of a university laboratory, objectification of women may be stronger, more prevalent, and even more detrimental to women's outcomes. Furthermore, if women are objectified in contexts other than dating situations—where a focus on appearance is normative—the effects of interpersonal objectification might have worse or qualitatively different negative effects on women. Together these results suggest that the objectification of women by men may be partly responsible for women's inhibited career growth, possibly having implications for women's power and satisfaction within the workplace (Szymanski & Feltman, 2015).

The current study found only marginal effects on cognitive performance, but this may be a function of experiencing a specifically interpersonal form of objectification—perhaps the strongest negative effects are on more socially relevant outcomes (e.g., relationship agency). Objectification may be partly responsible for the perpetuation of women's

subordinate status within interpersonal relationships, especially romantic relationships, having important implications for women's psychological and physical well-being (Lennon, Stewart, & Ledermann, 2013).

Finally, the current work highlights important gender differences in the outcomes of objectification. The process whereby objectification has an impact on self-objectification and its related outcomes was different for men and women. Women who were objectified by their male interaction partner experienced greater state self-objectification and ultimately reported lower career aspirations, performance, and relationship agency. The same was not true for men. Further, whereas women who perceived that their interaction with a man was inauthentic reported lower career aspirations, men who perceived that their interaction with a woman was inauthentic reported higher career aspirations, although these effects were not statistically significant. Fredrickson et al. (1998) also found evidence for this—men who self-objectified had increased performance on the cognitive task. Overall, the current study suggests a trend, such that objectification of women has a negative effect, whereas objectification of men has a neutral effect to positive effect—although the marginal differences across gender should be interpreted with caution.

Practice Implications

Our findings that objectification in interpersonal encounters is associated with self-objectification and inauthenticity have implications for interventionists and clinicians. The knowledge that for some women (i.e., women high in trait self-objectification), men's sexual objectification of them in an interpersonal interaction leads to state self-objectification could be incorporated into sexual harassment and sexual assault prevention programs (e.g., Stewart, 2014). Men might be more conscious and careful of their behavior when interacting with women if they were made aware that thinking of women in a holistic way that considers their full personhood instead of in a sexual objectifying manner might mitigate self-objectification.

Mental health practitioners might use these results to inform their treatment of health concerns known to be associated with self-objectification (e.g., disordered eating and sexual dysfunction). Knowledge of situation-dependent increases of self-objectification brought on by interaction partners might further arm female clients with appropriate other-directed attributions for their self-objectifying thoughts. It might also be important for practitioners to be aware of how self-objectification can increase feelings of discomfort and inauthenticity in interactions for both men and women alike. For people struggling with social anxiety and difficulty adjusting, for example, the additional feelings of inauthenticity, brought on by self-objectification, might exacerbate negative cognitions.

Limitations and Future Directions

One limitation of our study was that we used a relatively small sample size. Thus, more research needs to be conducted to replicate these findings, and possibly focus experimentally on individual pieces of this model. For example, we investigated the effects of state self-objectification on career aspirations and relationship agency, two outcomes that are rarely considered in objectification research. The low reliability of the relationship agency measure makes it particularly necessary to replicate the findings with a larger sample and, perhaps, a different measure. These interpersonal outcomes should be studied in other self-objectification contexts to establish the situations in which they are most affected. In addition, future studies may manipulate specific aspects of interaction authenticity to start developing a more detailed picture of how it affects other common self-objectification outcomes such as restricted eating. Furthermore, we only considered the effects of other-objectification on feeling like a body versus a full self, but future work might investigate variables such as body shame. We used only a single-item measure of self-objectification. The use of only a single-item to measure this construct may have introduced measurement error to our model thereby attenuating the relations between self-objectification and the other constructs.

Future research might consider behavioral measures of other-objectification rather than self-report. While our operationalization (thinking about one's partner's appearance more than who the partner is as a person) is very close to the theorized definition of objectification, it is difficult to know how thinking in an objectifying manner translates into objectifying treatment. We did find evidence that our measure of other-objectification for men predicted the extent to which their interaction partner experienced self-objectification. Thus, objectification was indeed communicated by the men to the women in these interactions. Exactly how objectification is transferred in interpersonal interactions is still unknown. We had hoped to code for behaviors that correspond to participants' self-reported objectification but due to the poor quality of our videos we failed to achieve agreement on objectifying behaviors (e.g., body gaze). This unanswered question leaves a rich opportunity for future research on communication of other-objectification.

This study used a new measure of relationship agency and found higher state self-objectification to be related to lower levels of relationship agency as mediated through interaction authenticity. More work needs to be done to disentangle this construct from gender role adherence, because some of the same behaviors involved in being agentic in one's relationships are associated with the masculine gender role. Although this scale may be tapping into adherence to gender role norms, and not relationship agency per se, we have no way to test this proposition because we have not measured gender role beliefs in the current study. These are likely closely related constructs, and a scale validation study would be necessary to establish convergent and divergent validity.

The order of measurement of our study variables might also have been problematic. All questions were asked after the participants' interaction, including trait self-objectification which is theorized to be a relatively stable characteristic. We have specified our model with trait self-objectification predicting state self-objectification (the mediator), and ideally, the mediator should be measured after the variable specified as the predictor to reduce the possibility that the mediator actually causes the predictor. However, we found that trait self-objectification was not correlated between dyad members, showing that the interpersonal interaction itself did not create nonindependence between participants' scores. Ideally in future studies, trait self-objectification would be measured earlier in time, perhaps in a prescreening session, so that participants' trait scores could be recorded prior to study participation.

Another limitation of this study is that we failed to measure sexual orientation. We believe that the inclusion of nonheterosexual participants would have only worked against finding the effects of objectification in this context, given that we were priming a dating scenario and all dyads were mixed gender. Future studies might consider how sexual orientation interacts with gender in interpersonal objectification contexts. We also did not have large enough sample sizes to test any effects of race on the self-objectification process. It could be that the specific racial compositions of the dyads amplify the consequences of interpersonal objectification. For example, in an interracial dyad where the man is White and the woman is Black, the sexualized stereotype of Jezebel might work to place the women under a specifically racially based sexual identity threat (Buchanan, Settles, & Woods, 2008).

One last limitation of this study was that we only included mixed-gender dyads. Same-sex dyads could be studied, in addition to mixed-sex dyads to see if the gender of the objectifier makes a difference in experiences of state self-objectification in an interaction. Strelan and Hargreaves (2005) found that women objectify women more than men objectify women. However, Calogero (2004) found that women experienced greater body shame and social physique anxiety when they anticipated interacting with a man than a woman. Thus, it is important to compare the effects of a female partner's other-objectification on a woman's self-objectification to the effects of a male partner's other-objectification. To test these possibilities, one would need to examine all three types—that is, male/male, female/female, and female/male—of dyads to be able to examine actor gender effects, partner gender effects, and the interaction of actor gender and partner gender effects (West, Popp, & Kenny, 2008). Testing the partner's gender effect could check the stability and interpersonal consequences of Strelan and Hargreaves's finding—women objectify other women more than men objectify women—as well as Calogero's finding—women seem to experience negative outcomes as a result of objectification from men but not women—in an actual interaction.

Conclusion

This study was the first to examine the consequences of being objectified by one's interaction partner in the context of a real face-to-face interpersonal encounter. For women, being objectified by a man was associated with experiencing state self-objectification, perceiving that the interaction was inauthentic, and having decreased career aspirations, cognitive performance, and relationship agency. For men, being objectified by a woman was not related to these deleterious outcomes. This work contributes to growing evidence that sexual objectification, a unique manifestation of gender oppression that unfolds within interpersonal encounters, is harmful for women. It is critical to uncover ways to end sexual objectification to promote success in careers, relationships, and well-being among all women.

Acknowledgments

The authors would like to thank Cara Wallace and Rachel Bolinsky for their help with data collection. The authors would also like to thank David A. Kenny for his guidance on data analysis and comments on previous drafts of this article.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

References

- Arbuckle, J. L. (2012). Amos 21 [Computer software]. Meadville, PA: Amos Development Corporation.
- Aubrey, J. S. (2006). Exposure to sexually objectifying media and body self-perceptions among college women: An examination of the selective exposure hypothesis and the role of moderating variables. *Sex Roles, 55*, 159–172. doi:10.1007/s11199-006-9070-7
- Aubrey, J. S. (2007). The impact of sexually objectifying media exposure on negative body emotions and sexual self-perceptions: Investigating the mediating role of body self-consciousness. *Mass Communication & Society, 10*, 1–23. doi:10.1080/15205430709337002
- Breines, J. G., Crocker, J., & Garcia, J. A. (2008). Self-objectification and well-being in women's daily lives. *Personality and Social Psychology Bulletin, 34*, 583–598. doi:10.1177/0146167207313727
- Buchanan, N. T., Settles, I. H., & Woods, K. C. (2008). Comparing sexual harassment subtypes among black and white women by military rank: Double jeopardy, the jezebel, and the cult of true womanhood. *Psychology of Women Quarterly, 32*, 347–361. doi:10.1111/j.1471-6402.2008.00450.x
- Calogero, R. M. (2004). A test of objectification theory: The effect of the male gaze on appearance concerns in college women.

- Psychology of Women Quarterly*, 28, 16–21. doi:10.1111/j.1471-6402.2004.00118.x
- Calogero, R. M., Tantleff-Dunn, S., & Thompson, J. K. (2011). Objectification theory: An introduction. In R. M. Calogero, S. Tantleff-Dunn, & J. K. Thompson (Eds.), *Self-objectification in women: Causes, consequences, and counteractions* (pp. 3–21). Washington, DC: American Psychological Association. doi:10.1037/12304-001
- Civile, C., & Obhi, S. S. (2016). Power, objectification, and recognition of sexualized women and men. *Psychology of Women Quarterly*, 40, 199–212. doi:10.1177/0361684315604820
- Davies, P. G., Spencer, S. J., Quinn, D. M., & Gerhardtstein, R. (2002). Consuming images: How television commercials that elicit stereotype threat can restrain women academically and professionally. *Personality and Social Psychology Bulletin*, 28, 1615–1628. doi:10.1177/014616702237644
- Davies, P. G., Spencer, S. J., & Steele, C. M. (2005). Clearing the air: Identity safety moderates the effects of stereotype threat on women's leadership aspirations. *Journal of Personality and Social Psychology*, 88, 276–287. doi:10.1037/0022-3514.88.2.276
- Deaux, K., & Major, B. (1987). Putting gender into context: An interactive model of gender-related behavior. *Psychological Review*, 94, 369–389. doi:10.1037/0033-295X.94.3.369
- Fairchild, K., & Rudman, L. A. (2008). Everyday stranger harassment and women's objectification. *Social Justice Research*, 21, 338–357. doi:10.1007/s11211-008-0073-0
- Fredrickson, B. L., & Roberts, T. (1997). Objectification theory: Toward understanding women's lived experiences and mental health risks. *Psychology of Women Quarterly*, 21, 173–206. doi:10.1111/j.1471-6402.1997.tb00108.x
- 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. doi:10.1037/0022-3514.75.1.269
- Gay, R. K., & Castano, E. (2010). My body or my mind: The impact of state and trait objectification on women's cognitive resources. *European Journal of Social Psychology*, 40, 695–703.
- Gervais, S. J., Vescio, T. K., & Allen, J. (2011). When what you see is what you get: The consequences of the objectifying gaze for women and men. *Psychology of Women Quarterly*, 35, 5–17. doi:10.1177/0361684310386121
- Gray, M. P., & O'Brien, K. M. (2007). Advancing the assessment of women's career choices: The career aspiration scale. *Journal of Career Assessment*, 15, 317–337. doi:10.1177/1069072707301211
- Hart, E. A., Leary, M. R., & Rejeski, W. (1989). The measurement of social physique anxiety. *Journal of Sport & Exercise Psychology*, 11, 94–104.
- Hebl, M. R., & Dovidio, J. F. (2005). Promoting the “social” in the examination of social stigmas. *Personality and Social Psychology Review*, 9, 156–182. doi:10.1207/s15327957pspr0902_4
- Hebl, M. R., King, E. B., & Lin, J. (2004). The swimsuit becomes us all: Ethnicity, gender, and vulnerability to self-objectification. *Personality and Social Psychology Bulletin*, 30, 1322–1331. doi:10.1177/0146167204264052
- Hill, M. S., & Fischer, A. R. (2008). Examining objectification theory: Lesbian and heterosexual women's experiences with sexual and self-objectification. *The Counseling Psychologist*, 36, 745–776. doi:10.1177/0011000007301669
- Impett, E. A., Schooler, D., & Tolman, D. L. (2006). To be seen and not heard: Femininity ideology and adolescent girls' sexual health. *Archives of Sexual Behavior*, 35, 131–144. doi:10.1007/s10508-005-9016-0
- Kenny, D. A., Kashy, D. A., & Cook, W. L. (2006). *Analysis of dyadic data*. New York, NY: Guilford Press.
- Lennon, C. A., Stewart, A. L., & Ledermann, T. (2013). The role of power in intimate relationships. *Journal of Social and Personal Relationships*, 30, 95–114. doi:10.1177/0265407512452990
- Logel, C., Walton, G. M., Spencer, S. J., Iserman, E. C., von Hippel, W., & Bell, A. E. (2009). Interacting with sexist men triggers social identity threat among female engineers. *Journal of Personality and Social Psychology*, 96, 1089–1103. doi:10.1037/a0015703
- Martin, K. A., Rejeski, W., Leary, M. R., McAuley, E., & Bane, S. (1997). Is the Social Physique Anxiety Scale really multidimensional? Conceptual and statistical arguments for a unidimensional model. *Journal of Sport & Exercise Psychology*, 19, 359–367.
- Martins, Y., Tiggemann, M., & Kirkbride, A. (2007). Those speedos become them: The role of self-objectification in gay and heterosexual men's body image. *Personality and Social Psychology Bulletin*, 33, 634–647. doi:10.1177/0146167206297403
- McFarlin, D. B., & Blascovich, J. (1984). On the Remote Associates Test (RAT) as an alternative to illusory performance feedback: A methodological note. *Basic and Applied Social Psychology*, 5, 223–229. doi:10.1207/s15324834baspp0503_5
- Moradi, B., & Huang, Y. (2008). Objectification theory and psychology of women: A decade of advances and future directions. *Psychology of Women Quarterly*, 32, 377–398. doi:10.1111/j.1471-6402.2008.00452.x
- Neff, K. D., & Harter, S. (2002). The role of power and authenticity in relationship styles emphasizing autonomy, connectedness, or mutuality among adult couples. *Journal of Social and Personal Relationships*, 19, 835–857. doi:10.1177/0265407502196006
- 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. doi:10.1111/j.1471-6402.1998.tb00181.x
- Olsen, J. A., & Kenny, D. A. (2006). Structural equation modeling with interchangeable dyads. *Psychological Methods*, 11, 127–141. doi:10.1037/1082-989X.11.2.127
- Quinn, D. M., Chaudoir, S. R., & Kallen, R. W. (2011). Performance and flow: A review and integration of self-objectification research. In R. M. Calogero, S. Tantleff-Dunn, & J. K. Thompson (Eds.), *Self-objectification in women: Causes, consequences, and counteractions* (pp. 119–138). Washington, DC: American Psychological Association. doi:10.1037/12304-006

- 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. doi:10.1111/j.1471-6402.2006.00262.x
- Sadler, P., & Woody, E. (2003). Is who you are who you're talking to? Interpersonal style and complementarity in mixed-sex interactions. *Journal of Personality and Social Psychology, 84*, 80–96. doi:10.1037/0022-3514.84.1.80
- Saguy, T., Quinn, D. M., Dovidio, J. F., & Pratto, F. (2010). Interacting like a body: Objectification can lead women to narrow their presence in social interactions. *Psychological Science, 21*, 178–182. doi:10.1177/0956797609357751
- Sanchez, D. T., & Broccoli, T. L. (2008). The romance of self-objectification: Does priming romantic relationships induce states of self-objectification among women? *Sex Roles, 59*, 545–554. doi:10.1007/s11199-008-9451-1
- Shelton, J. N., & Richeson, J. A. (2006). Interracial interactions: A relational approach. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 38, pp. 121–181). San Diego, CA: Elsevier Academic Press. doi:10.1016/S0065-2601(06)38003-3
- Shelton, J. N., Richeson, J. A., & Salvatore, J. (2005). Expecting to be the target of prejudice: Implications for interethnic interactions. *Personality and Social Psychology Bulletin, 31*, 1189–1202. doi:10.1177/0146167205274894
- Slater, A., & Tiggemann, M. (2015). Media exposure, extracurricular activities, and appearance-related comments as predictors of female adolescents' self-objectification. *Psychology of Women Quarterly, 39*, 375–389. doi:10.1177/0361684314554606
- Steele, C. M., Spencer, S. J., & Aronson, J. (2002). Contending with group image: The psychology of stereotype and social identity threat. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 34, pp. 379–440). San Diego, CA: Academic Press.
- Stewart, A. L. (2014). The Men's Project: A sexual assault prevention program targeting college men. *Psychology of Men & Masculinity, 15*, 481–485. doi:10.1037/a0033947
- Strelan, P., & Hargreaves, D. (2005). Women who objectify other women: The vicious circle of objectification? *Sex Roles, 52*, 707–712. doi:10.1007/s11199-005-3737-3
- Szymanski, D. M., & Feltman, C. E. (2015). Linking sexually objectifying work environments among waitresses to psychological and job-related outcomes. *Psychology of Women Quarterly, 39*, 390–404. doi:10.1177/0361684314565345
- Tolman, D. L., Impett, E. A., Tracy, A. J., & Michael, A. (2006). Looking good, sounding good: Femininity ideology and adolescent girls' mental health. *Psychology of Women Quarterly, 30*, 85–95. doi:10.1111/j.1471-6402.2006.00265.x
- West, T. V., Popp, D., & Kenny, D. A. (2008). A guide for the estimation of gender and sexual orientation effects in dyadic data: An actor-partner interdependence model approach. *Personality and Social Psychology Bulletin, 34*, 321–336. doi:10.1177/0146167207311199
- Zurbriggen, E. L., Ramsey, L. R., & Jaworski, B. K. (2011). Self- and partner-objectification in romantic relationships: Associations with media consumption and relationship satisfaction. *Sex Roles, 64*, 449–462. doi:10.1007/s11199-011-9933-4