Women's Luxury Products as Signals to Other Women

Tunca, Burak; Yanar, Evrim

Replication Note:

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Burak Tunca
School of Economics and Management, Lund University, Sweden
burak.tunca@fek.lu.se

Evrim Yanar
Faculty of Business and Economics, University of Lausanne, Switzerland
evrim.yanar@unil.ch

Abstract

We present two preregistered replications of the paper by Wang and Griskevicius (2014), which reported that women flaunt luxury products to signal their partners' devotion, thereby guarding their relationships from rivals. In Study 1, which was a conceptual replication with real luxury brands, we did not observe an effect of luxury products on partner devotion but found that women assumed male partners contribute financial resources to women's luxury possessions. In Study 2, which was a direct replication with designer products, we observed a small-sized effect in the opposite direction, such that perceived partner devotion increased when women used nondesigner products. Similar to Study 1, perceived partner contribution to possessions was higher for designer products.

1. Background

The motivational underpinnings of luxury consumption have long been a research area in marketing, and much attention has been directed towards understanding the role of luxury possessions in romantic relationships. Building on evolutionary theories, several studies identified that the fundamental motive for men to spend on luxury was to attract desirable romantic partners ("mate acquisition"; see Griskevicius & Kenrick, 2013). Yet, this motive did not explain why women spend on luxury, given that men are not attracted by expensive handbags or designer jewelry.

The question of why women spend on luxury was later addressed by Wang and Griskevicius (2014), which showed that the main motivation behind women's luxury possessions was "mate guarding", as women used luxury products to signal other women that they had a devoted partner, thereby protecting the mate and the relationship. This study has not only been cited widely (over 300 citations in Google Scholar as of February 2020), but also received substantial coverage in media outlets such as *Daily Mail*, *CBS News*, *The Atlantic*, and *Science Daily*. Despite its impact, the main tenets of this research have not been replicated in the literature. In this replication note, we present one conceptual replication and extension, as well as one direct replication[1] of the two main postulations in Wang and Griskevicius (2014), which state that (1) women perceive other women with luxurious possessions as having a more devoted partner, and (2) women assume that male partners contribute financially to the luxury possessions of women.

2. Study 1: Conceptual Replication

2.1. Hypotheses

In Study 1, our objective was to conceptually replicate and extend the findings presented in Wang and Griskevicius (2014). We tested the main hypotheses of the original paper, which pertain to the impact of luxury possessions on perceived partner devotion and perceived partner contributions to luxury possessions:

H1: Luxuriousness of a woman's possessions will lead other women to perceive her as having a more devoted partner.

H2: Luxuriousness of a woman's possessions will lead other women to assume that her partner has paid for those possessions.

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[1] Study hypotheses and methods were preregistered prior to data collection to ensure that data collection and analyses were conducted as planned. Preregistration, as well as the survey, dataset, and analyses outputs for both experiments are publicly available at the Open Science Framework (see https://osf.io/czvu6/).

We extend the conceptual framework presented in Wang and Griskevicius (2014) by introducing an individual difference variable, namely, "benevolent sexism", which is defined "as a set of interrelated attitudes toward women that are sexist in terms of viewing women stereotypically and in restricted roles but that are subjectively positive in feeling tone (for the perceiver) and also tend to elicit behaviors typically categorized as prosocial (e.g., helping) or intimacy-seeking (e.g., self-disclosure)" (Glick & Fiske, 1996, p. 491). Benevolent sexism gives rise to beliefs such as women should be cherished by men or women's financial needs should be satisfied by men; thus, women who score high in this trait might be more likely to link a woman's luxury products to her partner's devotion and his resources. Accordingly, we tested the moderating role of benevolent sexism with the following hypotheses:

H3: The effect of luxuriousness of the possessions on the perceived devotion of the partner will be higher in women who are high in benevolent sexism.

H4: The effect of luxuriousness of the possessions on the assumed likelihood that the partner has paid for those possessions will be higher in women who are high in benevolent sexism.

Further, in the eyes of women high in trait benevolent sexism, buying luxury products for the partner might be a stronger indicator of a man's devotion, since it is in line with their expectations about men (i.e., providing financial resources to the relationship). Put simply, benevolent sexism may lead to the assumption that the partner contributed to the luxury possessions, which in turn may lead to heightened perceptions of devotion. Finally, the following mediation hypothesis was formulated:

H5: Women high in benevolent sexism will perceive another woman with luxurious possessions as having a more a devoted partner, and this effect will be mediated by the assumed likelihood that the partner might have paid for the woman's possessions.

2.2. Sample and Design

An overview of the comparison between the original and replication experiments is presented in Table 1. We collected data from 250 participants (original experiment: $N = 69$) using the online participant pool Prolific (Palan & Schitter, 2018). Participants were screened for age (18 and over), nationality (United States), sex (female), and sexual orientation (heterosexual). A reward of $0.50 were presented in exchange for participation. 250 participants completed the study (M_{age} = 38.80, SD = 12.52). As with the original paper, an experimental design with two between-subjects conditions (nonluxury possessions vs. luxury possessions) was used in the replication study. Participants were randomly assigned to the conditions ($n_{nonluxury}$ = 123, n_{luxury} = 127).

Original Experiment	Replication Experiment
Sample:	
$N = 69$, MTurk online panel ($M_{age} = 32.57$, $SD = 12.12$)	$N = 250$, Prolific online panel ($M_{age} = 38.80$, $SD = 12.52$)
Stimuli:	
"Imagine you are at a gala party, where you see another woman. This woman is at the party with a man. He is her date and current relationship partner. You notice her outfit and accessories. She is carrying an unbranded (a luxury designer) handbag. You also notice that she has inexpensive and unimpressive (expensive and impressive) jewelry."	"Imagine you are at a gala party, where you see another woman. This woman is at the party with a man. He is her date and current relationship partner. You notice her outfit and accessories. She is carrying an H&M® (Louis Vuitton®) handbag. You also notice that she has ZARA® (Tiffany & Co.®) jewelry."
Manipulation check	
-	- "I think this woman is interested in luxury brands"
Dependent variables:	
Devotion ($\alpha = 0.91$): - "How committed do you think the man is to the woman?" - "How much do you think the man loves the woman?"	Devotion ($\alpha = 0.89$): - "How committed do you think the man is to the woman?" - "How much do you think the man loves the woman?" Partner Contribution: - "How likely is it that the man paid for the handbag and accessories of the woman?".
Moderating variables:	
-	Benevolent Sexism (6 items, $\alpha = 0.82$)

Table 1: Comparison between the original experiment (Wang & Griskevicius, 2014, Study 1) and the replication experiment (Study 1).

2.3. Procedure and Measures

First, all participants responded to six items that gauged benevolent sexism, which were adopted from the short version of the Ambivalent Sexism Inventory (e.g., "Many women have a quality of purity that few men possess", "Women should be cherished and protected by men"; Glick & Whitehead, 2010). A benevolent sexism index was calculated by averaging these items ($\alpha = 0.82$).

Next, participants read a description of a woman who was at a gala party with her partner, which was adapted from the original paper (see Appendix in Wang & Griskevicius, 2014). While the woman's possessions were presented as "nondesigner/designer brand outfit and accessories" in the original paper, the replication study included real luxury and nonluxury brands. Louis Vuitton® and Tiffany & Co.®, which are among the most desirable luxury brands in the U.S. (Statista, 2018), represented luxury brands; H&M® and ZARA®, which are among

the top general apparel brands (Brandirectory, 2019), represented nonluxury brands. Participants read the following description (luxury condition in parentheses):

"Imagine you are at a gala party, where you see another woman. This woman is at the party with a man. He is her date and current relationship partner. You notice her outfit and accessories. She is carrying an H&M® (Louis Vuitton®) handbag. You also notice that she has ZARA® (Tiffany & Co.®) jewelry."

Then, participants answered a manipulation check item ("I think this woman is interested in luxury brands"). Two items adopted from the original paper to measure partner devotion ("How committed do you think the man is to the woman?" and "How much do you think the man loves the woman?") were presented subsequently. A devotion index was formed by averaging these items ($r = 0.80$, $p < .001$; $\alpha = 0.89$). Afterwards, a question to gauge the likelihood that male partner contributed to women's possessions were provided ("How likely is it that the man paid for the handbag and accessories of the woman?"). This question was measured with a 0-100% scale, whereas all other items were recorded with a 7-point Likert-type scale (1 = "strongly disagree" or "not at all" to 7 = "strongly agree" or "very much"). The survey ended with demographics questions and debriefing about the aim of the study.

2.4. Results

Preliminary analyses showed that participants' benevolent sexism scores did not differ between conditions ($M_{nonluxury} = 3.51$, $SD = 1.17$; $M_{luxury} = 3.50$, $SD = 1.40$, $t(248) = 0.06$, $p = .953$, $d = 0.01$), and the manipulation check was successful as the woman in the luxury condition was perceived to be more interested in luxury brands than did the one in the nonluxury condition ($M_{nonluxury} = 4.21$, $SD = 1.68$; $M_{luxury} = 6.56$, $SD = 0.63$, $t(248) = 14.73$, $p = <.001$, $d = 1.86$).

Hypothesis 1 examined whether women perceived other women with luxury possessions to have a more devoted partner. While the original paper found a significant effect of luxury possessions on perceived partner devotion ($M_{nonluxury} = 4.82$, $M_{luxury} = 5.40$, $t(67) = 2.01$, $p = .048$), this effect was not significant in the replication study ($M_{nonluxury} = 4.70$, $SD = 0.87$; $M_{luxury} = 4.81$, $SD = 0.93$, $t(248) = 1.05$, $p = .295$, $d = 0.13$; see Figure 1). Hypothesis 2 examined the likelihood that women assumed that the target woman's partner paid for her luxury belongings. The original paper did not directly test this hypothesis, but reported that participants assumed that "the man paid for more than half (58%) of a woman's luxury products" (Wang & Griskevicius, 2014, p. 846). The replication results showed that women were more likely to believe that the partner paid for luxury (vs. nonluxury) possessions of the target woman ($M_{nonluxury} = 38.16\%$, $SD = 22.19$; $M_{luxury} = 51.87\%$, $SD = 18.67$, $t(248) = 5.29$, $p = <.001$, $d = 0.67$; see Figure 1).
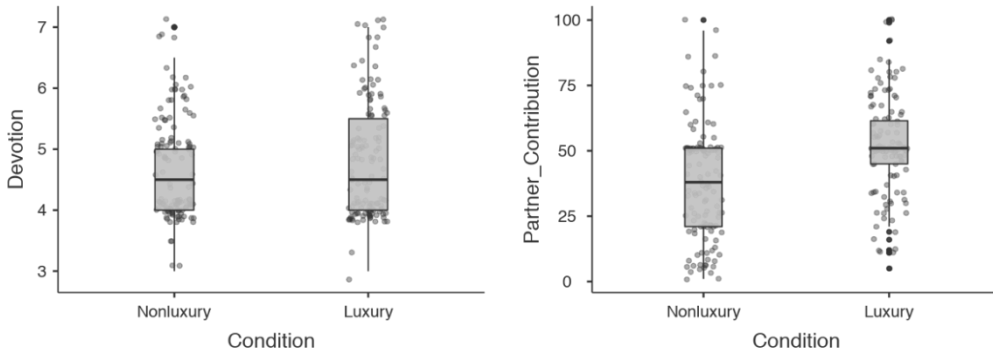
Figure 1: Comparison of perceived devotion and partner contribution variables between experimental conditions in Study 1.

Hypotheses 3 and 4 postulated that the effects of luxury (vs. nonluxury) condition on perceived devotion and anticipated partner's contribution to the possessions would be moderated by participants' benevolent sexism scores. The corresponding correlation matrix for these variables is presented in Table 2. Multiple regression analysis showed that, although higher benevolent sexism scores were significantly associated with higher perceived devotion and partner contribution scores, there were no interaction effects ($p = .626$ and $p = .439$, respectively). These hypotheses were therefore rejected.

	(1)	(2)	(3)	(4)	(5)
(1) Condition (0 = nonluxury, 1 = luxury)	-				
(2) Benevolent Sexism	< -.01 $p = .953$	-			
(3) Perceived Partner Contribution	.32 $p <.001$	.30 $p <.001$	-		
(4) Perceived Devotion	.07 $p = .295$	.16 $p = .010$	.22 $p <.001$	-	
(5) Condition * Benevolent Sexism	< .01 $p = .998$	.18 $p = .004$	.10 $p = .129$	< -.01 $p = .999$	-

Table 2: Correlation coefficients between the variables and interaction term (mean-centered) in the moderation analyses.

Hypothesis 5 posited that women high in benevolent sexism would perceive other women with luxury possessions to have a more devoted partner, and this relationship would be mediated by perceived financial contributions of the partner. Moderated mediation analyses with 5000 bootstrap samples were conducted to test this hypothesis which combined the luxury (vs. nonluxury) possessions condition and the proposed "benevolent sexism → partner contribution → devotion" mediation model. Conditional mediation analyses showed that, in the luxury possessions condition, the indirect effect of benevolent sexism on devotion through

perceived partner contribution was not significant ($B = 0.05$, 95%CI [-0.01, 0.11], $p = .102$). Hypothesis 5 was therefore rejected. The proposed mediation was also not significant in the nonluxury condition ($B = 0.03$, 95% CI [-0.01, 0.07], $p = .140$).

3. Study 2: Direct Replication

Having failed to replicate the main effect of luxury possessions on partner devotion in Study 1, we conducted a direct replication of the original experiment to revisit Hypotheses 1 and 2.

3.1. Sample and Design

Data for the direct replication were collected from the same participant pool with the same screening criteria as in Study 1. 255 participants completed the study and received $0.25 as compensation ($M_{age} = 39.21$, $SD = 12.22$; Study 1 participants were not allowed to take part in Study 2). As with Study 1, participants were randomly assigned to one of the two between-subjects conditions (nondesigner possessions, $n = 127$ vs. designer possessions, $n = 128$).

3.2. Procedure and Measures

As in Study 1, participants first read the description of a woman who was at a gala party with her date and had designer (nondesigner) possessions:

"Imagine you are at a gala party, where you see another woman. This woman is at the party with a man. He is her date and current relationship partner. You notice her outfit and accessories. She is carrying a luxury designer (an unbranded) handbag. You also notice that she has expensive and impressive (inexpensive and unimpressive) jewelry."

Next, participant responded to the manipulation check item ("I think this woman is interested in designer products"), followed by the two items measuring devotion ($r = 0.86$, $p < .001$; $\alpha = 0.92$) and one item measuring male partner's financial contribution to woman's possessions, which were identical to the items in Study 1.

3.3. Results

The experimental manipulation was successful: the woman in the designer condition was perceived to be more interested in designer products than did the one in the nondesigner condition ($M_{nondesigner} = 2.32$, $SD = 1.34$; $M_{designer} = 6.41$, $SD = 0.75$, $t(253) = 30.16$, $p = <.001$, $d = 3.78$).

Hypothesis 1, which stated that women with luxury possession will be perceived as having a more devoted partner, was not supported in Study 1. In Study 2, which used designer possessions stimuli as in the original paper, a small effect in the opposite direction was observed, such that participants perceived the women with nondesigner possessions to have a more devoted partner ($M_{nondesigner} = 5.09$, $SD =$

1.09) than the women with designer possessions ($M_{designer} = 4.81$, $SD = 0.95$, $t(253)$ = 2.14, $p = .033$, $d = 0.27$; see Figure 2).

Pertaining to Hypothesis 2, the results were consistent with Study 1: participants were more likely to believe that the male partner paid for designer (vs. nondesigner) possessions of the target woman ($M_{nondesigner} = 28.56\%$, $SD = 20.07$; $M_{designer} = 54.16\%$, $SD = 25.77$, $t(253) = 8.85$, $p = <.001$, $d = 1.11$; see Figure 2). We further conducted internal meta-analyses for the two presented replications, which are available as a Web Appendix to this article.
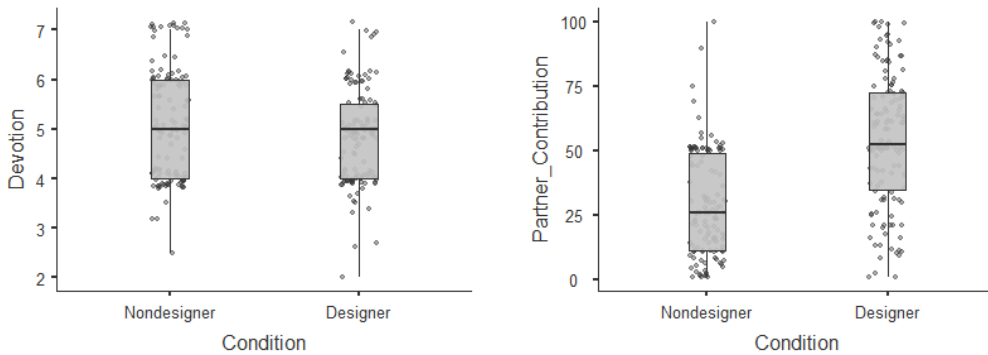

Figure 2: Comparison of perceived devotion and partner contribution variables between experimental conditions in Study 2.

4. Discussion and Conclusions

Wang and Griskevicius (2014) posited that one of the major motives for women to consume luxury is mate guarding, such that women use luxury possessions to signal other women that their partners are devoted to the relationship. The present replication aimed at replicating and extending this framework through additional variables relevant to the role of women's luxury consumption in romantic relationships, thereby contributing to the literature in several ways.

In Study 1, we did not observe a relationship between luxury possessions and partner devotion; but found that women assumed male partners were more likely to contribute financially to luxury (vs. nonluxury) possessions. Because the original paper used "designer brand outfit and accessories" and the replication study used real luxury brands, it was possible that designer possessions evoked other qualities about the woman such as being authentic or unique which in turn could give rise to higher partner devotion perceptions. Such qualities might not be associated with mainstream luxury products. To eliminate this possibility, we conducted Study 2, a direct replication with designer (vs. nondesigner) products. Surprisingly, we found a small negative impact of luxury possessions on partner devotion.

What could be the reasons for these results? One possibility is desirability bias. In recent years, we have witnessed heightened awareness about issues related gender equality and subjugation of women in relationships, especially in the US where the studies were conducted. It is therefore possible that participants felt reluctant to indicate that a woman has a devoted partner just because she had luxury products, thereby nullifying the original effects. Another possibility is that women with luxury possessions were implicitly perceived to have materialistic traits, and the participants did not believe that the partner was devoted to a highly materialistic person. Women's luxury expenditures can give rise to negative perceptions such as materialism or low levels of life satisfaction (Hudders & Pandelaere, 2012). Further, women perceive women who consume luxury as more ambitious, sexy, and flirty; as well as less loyal and less mature (Hudders et al., 2014). Considering that these traits are more likely to be related to short-term relationships (and thereby lower devotion), women who prefer nonluxury possessions might be perceived to be more loyal and more mature, therefore more likely to have a long-term relationship and a devoted partner.

Future studies should further scrutinize the boundary conditions of the relationship between luxury products and partner devotion. Study 1 showed that trait benevolent sexism did not moderate this relationship, but it was positively associated with perceived financial contributions of the male partner. Culture is a likely candidate for a moderator, for luxury consumption is known to be culture bound. For instance, compared with Western cultures, consumers in Eastern cultures are more likely to acquire luxury products through gift exchange (Wong & Ahuvia, 1998). It should also be noted that the mean ages of respondents in the replications (38.8 and 39.2) were somewhat higher than the original experiment (32.6). Thus, future studies could examine whether the relationship between luxury possessions and devotion vary across different age groups. A robust finding from our replications is that women assume partners contribute financially to luxury possessions. Experimentally manipulating whom the women is with (e.g., friend, mother, husband, etc.) could uncover whether this contribution is linked to the romantic relationship or it is just a demand effect. Last, the direction of the relationship between devotion and financial contribution would be worthwhile to examine. Wang and Griskevicius (2014) posited that a male partner's contribution to his partner's luxury possessions is an indicator of his devotion to the relationship. However, it is also possible that the degree of devotion leads to contribution of more resources. Future studies could disentangle the direction of this relationship through experimental methods.

5. References

Brandirectory. (2019). *Apparel 50*. https://brandirectory.com/rankings/apparel-50-2019

Glick, P., & Fiske, S. T. (1996). The Ambivalent Sexism Inventory: Differentiating hostile and benevolent sexism. *Journal of Personality and Social Psychology*, *70*(3), 491–512. https://doi.org/10.1037/0022-3514.70.3.491

Glick, P., & Whitehead, J. (2010). Hostility Toward Men and the Perceived Stability of Male Dominance. *Social Psychology*, *41*(3), 177–185. https://doi.org/10.1027/1864-9335/a000025

Griskevicius, V., & Kenrick, D. T. (2013). Fundamental motives: How evolutionary needs influence consumer behavior. *Journal of Consumer Psychology*, *23*(3), 372–386. https://doi.org/10.1016/j.jcps.2013.03.003

Hudders, L., De Backer, C., Fisher, M., & Vyncke, P. (2014). The Rival Wears Prada: Luxury Consumption as a Female Competition Strategy. *Evolutionary Psychology*, *12*(3), 147470491401200320. https://doi.org/10.1177/147470491401200306

Hudders, L., & Pandelaere, M. (2012). The Silver Lining of Materialism: The Impact of Luxury Consumption on Subjective Well-Being. *Journal of Happiness Studies*, *13*(3), 411–437. https://doi.org/10.1007/s10902-011-9271-9

Palan, S., & Schitter, C. (2018). Prolific.ac—A subject pool for online experiments. *Journal of Behavioral and Experimental Finance*, *17*, 22–27. https://doi.org/10.1016/j.jbef.2017.12.004

Statista. (2018). *Top desirable luxury brands in the U.S. 2018*. https://www.statista.com/forecasts/876305/top-desirable-luxury-brands-in-the-us

Wang, Y., & Griskevicius, V. (2014). Conspicuous Consumption, Relationships, and Rivals: Women's Luxury Products as Signals to Other Women. *Journal of Consumer Research*, *40*(5), 834–854. https://doi.org/10.1086/673256

Wong, N. Y., & Ahuvia, A. C. (1998). Personal taste and family face: Luxury consumption in Confucian and western societies. *Psychology & Marketing*, *15*(5), 423–441. https://doi.org/10.1002/(SICI)1520-6793(199808)15:5<423::AID-MAR2>3.0.CO;2-9